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ABSTRACT

Interest in applied performance testing and concern abcut the quality of the high school diploma are finding a ccmmon ground: graduation requirements. A competency is a complex capability applicable in real life situations, and can be used as program objectives in a competency-based, criterion-referenced program. In such a program, applied performance testing is used to measure the mastery of the required competencies. Government at all levels has attempted to ccntrol proficiency standards, and 27 states now have mandated proficiency testing. Many local districts have also initiated competency tests. New tests are being developed to meet these demands. Two apprcaches are being taken: individual schools are writing items, and existing item pools are beinq tapped. The NASSP Task Force on Graduation Requirements holds that the diploma should certify that the graduate possesses the baseline skills and knowledge essential to effective adult citizenship. The current interest in competency tests as graduation requirements faces twc problems: at which grade level the test shculd be administered, and the status of students who do not qualify for a competency-based diploma. The appendices include sample items frcm 15 competency tests, and a summary of schcol district and state competency requirements. (BW)

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Competency Tests and Graduation Requirements

Second Edition

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Competency Tests and Graduation Requirements

Second Edition

The National Association of Secondary School Principals
Reston, Virginia 22091

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The second edition was prepared by James W. Keefe, coordinator of research. Nancy De Leonibus, research associate, compiled the 50-state analysis of competency testing.

Foreword

The critics and the defenders of secondary schools seldom agree, but they do possess a common outlook about the importance of certain basic skills. The ability to read, to write, and to compute is generally believed to be as important to the youth of today and tomorrow as it was to the youth of yesterday.

Some educators believe certain other skills to be of equal value. For instance, the capacity to solve problems, to demonstrate entry level career skills, or to develop good interpersonal relationships receives high marks in many sectors.

Concern is being expressed by the public and by the profession that too many high school graduates are deficient in these matters. Too many youth leaving school demonstrate an inability to compute well enough to be intelligent consumers, or lack a reading proficiency sufficient to follow job instructions and basic safety rules.

The question is not one of screening persons out of a diploma. Rather, the question is one of identifying and remediating deficiencies early in a student's career while at the same time verifying to the community that the end result of secondary education does meet the expectations of society.

This monograph on competency tests addresses the dual question of assisting students while at the same time insisting that the diploma regain meaning. It provides a good background to the competency test movement, and reports upon the initiatives taken nationwide to use performance tests as a requirement for graduation.

NASSP expresses its appreciation to the many schools and school districts who generously provided examples of their performance tests for this publication.

Owen B. Kiernan
Executive Director

Introduction

A rising interest in applied performance testing along with a public concern about the quality of the high school diploma are together finding a common ground. This common ground, graduation requirements, sets the expectations for students completing a secondary school education.

Stung by reports about the deficiencies of today's graduate, some schools are launching efforts to ensure that the high school graduate can perform some basic skills. The most direct route to this objective is through competency testing. Here, proficiencies or capabilities can be assessed rather than assumed. Here, society's expectations for graduating seniors can be verified as well as be identified.

The use of tests to verify competencies required for graduation is a relatively new but rapidly growing movement in the United States. The Denver public schools as pioneers have been administering competency tests in basic skills for 15 years. The state of Oregon in 1973 passed legislation requiring graduates of the class of 1978 to demonstrate proficiencies in 20 areas. Perhaps because of Oregon's well-publicized decision, interest grew during 1975 and 1976 so that some 20 jurisdictions currently include competencies as part of their requirements for the high school diploma.

The tests of General Educational Development (GED), sponsored by the Armed Services, is one form of applied performance test. Older youth and adults have been taking the GED high school equivalency test since World War II. More recently, during the 1975-76 school year, the state of California began administering "High School Proficiency Examinations" to interested students of age 16 and over. The certificate awarded to students who pass this examination carries a legal status equivalent to the regular diploma.

This monograph, however, does not focus upon general equivalency examinations. Rather, its purpose is to explore the use of a variety of specific competency tests that measure skill achievement required for high school graduation. The successful performance of certain competencies ordinarily is viewed as an important adjunct of course work. They are not seen by most schools as a replacement for course work, but rather as one significant step toward gaining the diploma.

Background

In 1973, litigation was introduced in the San Francisco Superior Court on behalf of a recent high school graduate against the San Francisco school board for negligence and fraud. "Peter Doe" (a pseudonym) had been graduated from a high school despite the fact that he was unable to read beyond the fifth grade level. The plaintiff claimed that his reading level at graduation was below the level of competence required to hold a job. He was, it turned out, a student of average ability who learned to read with relative ease after private tutoring. The San Francisco schools were accused of negligence because they gave Peter Doe a diploma that implied he had attained a level of achievement suitable for graduation from high school.

Some years later the lower court's dismissal of the case was upheld on appeal for reasons not altogether flattering to the schools. For schools to be guilty of negligence, ruled the court, it must be within their power to prevent the potential harm. But, the court reasoned, students may fail to learn for all sorts of reasons, many of which are beyond the school's power to control. Moreover, for schools to be guilty of fraud, the diploma must signify some specific achievement. To award the diploma without the specific achievement present would be to behave fraudulently. But the high school diploma does not seem to signify that the student has learned anything in particular; hence, no fraud.

The Public Push

Many citizens view schools today with a certain skepticism. They feel that despite heavy expenditures the educational gains are negligible at best. What is the purpose, the public asks, of sending students to school for 12 years if upon graduation these young persons cannot read well or compute accurately? A resistance is growing toward the mere attendance of students in school; new questions are being asked about the outcomes of this attendance.

As a result of this public review and analysis, schools are being asked to account for the quality of their products. Thus, the significance of graduation requirements comes into focus. Graduation, as the capstone of secondary education, logically should reflect some central priorities of schooling. Citizens are asking for students to demonstrate these priorities. They want measurable results for the education dollars spent.

Declining test scores and other indicators of marginal student performance play a part in the public's determination to define the high school diploma. Among the concerns are these:

- Scores on the Scholastic Aptitude Test (SAT) have fallen 44 points on the verbal section from a mean of 473 in 1965 to a mean of 429 in 1978; and 28 points on the mathematics section from a mean of 496 in 1965 to a mean of 468 in 1978.
- The National Assessment of Education Progress (NAEP) in 1975 reported a decline in science knowledge among American students between 1969 and 1973 equivalent to a half-year loss in learning.
- NAEP also has reported in a nationwide survey of 17-year-old students and young adults that "many consumers are not prepared to shop wisely because of their inability to use fundamental math principles such as figuring with fractions or working with percents."
- Twenty-three million Americans are functionally illiterate, according to a study sponsored by the U.S. Office of Education.
- Comparative surveys of writing skills in 1970 and 1974 show 13- and 17-year-old youth to be using a more limited vocabulary and writing in a shorter, more "primer-like" style in 1974 than in 1970.
- The American College Testing (ACT) program has reported a decline in the average scores of students applying for college admission.
- The Association of American Publishers revised its textbook study guide for college freshmen in 1975, gearing the reading level down to the ninth grade.
- College officials, business firms, and public agencies express dismay at the inability of younger persons to express themselves clearly in writing.

The public and many professionals want to reverse this decline. Since an obvious checkpoint upon the effects of schooling comes at the conclusion of the twelfth grade, requirements for graduation take on a new dimension. The competency test has been the most prevalent method utilized by districts and schools to assess this twelfth grade level of student performance.

Definitions

Although activity surrounding competency-based education has increased, much confusion is associated with it. Some definitions are in order.

A *competency* is a complex capability applicable in real life situations. A competency is not a prototypic skill (such as word or number recognition) but a derivative or multiple one. It is a cluster of functional understandings, skills and/or attitudes. The outline in Figure 1 clearly defines the place of competencies in the overall schema of performance-based education. Note that competencies are really program objectives forming a bridge between the broader goals and the more specific course and performance objectives. Figure 2 gives some sample goals and objectives in the area of language arts. The specific competency chosen here is basic reading skills. The example could just as easily reflect a writing, speaking or viewing goal—indeed any of the sub-areas of the program goal in the example. Competencies are not foundation stones but they certainly are the building blocks of education.

Competency-based education (CBE) is essentially a set of processes that "facilitate, measure, record and certify . . . the demonstration of . . . explicitly stated and agreed upon learning outcomes that reflect successful functioning in life roles."[1] The implications of this definition are quite clear, if overwhelming. CBE is a systems approach to basic skills education. It presupposes, first and foremost, agreement among all interested parties about what life-related objectives will be the basis of the required competencies. It demands instructional procedures that support the development of functional capabilities (hence the close relationship between CBE and individualized, diagnostic/prescriptive education). It calls for measurement techniques that permit an unbiased and reasonably accurate assessment of the proficiencies. (This aspect is the major focus of this monograph.) It assumes administrative procedures that verify progress toward and completion of the various competencies.

Applied performance testing is simply the measurement of performance in an actual or simulated setting. "Knowledge about" a topic is insufficient. Examinees must actually *demonstrate* the ability to perform required tasks.

The U.S. government, as well as business and industry, uses performance tests to determine qualifications of job applicants. For instance, the Government Printing Office utilizes performance measures of various printing tasks as the basis for selecting new employees, and the General Aviation Administration uses proficiency tests to evaluate the success of training programs. Use of performance tests will likely accelerate since recent court decisions have required employment tests to be job (or skill) specific.

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1. Spady, William G. "Competency-Based Education: A Bandwagon in Search of a Definition," *Educational Researcher*, January 1977, p. 10.

Figure 1. Competency-Based Education Schema

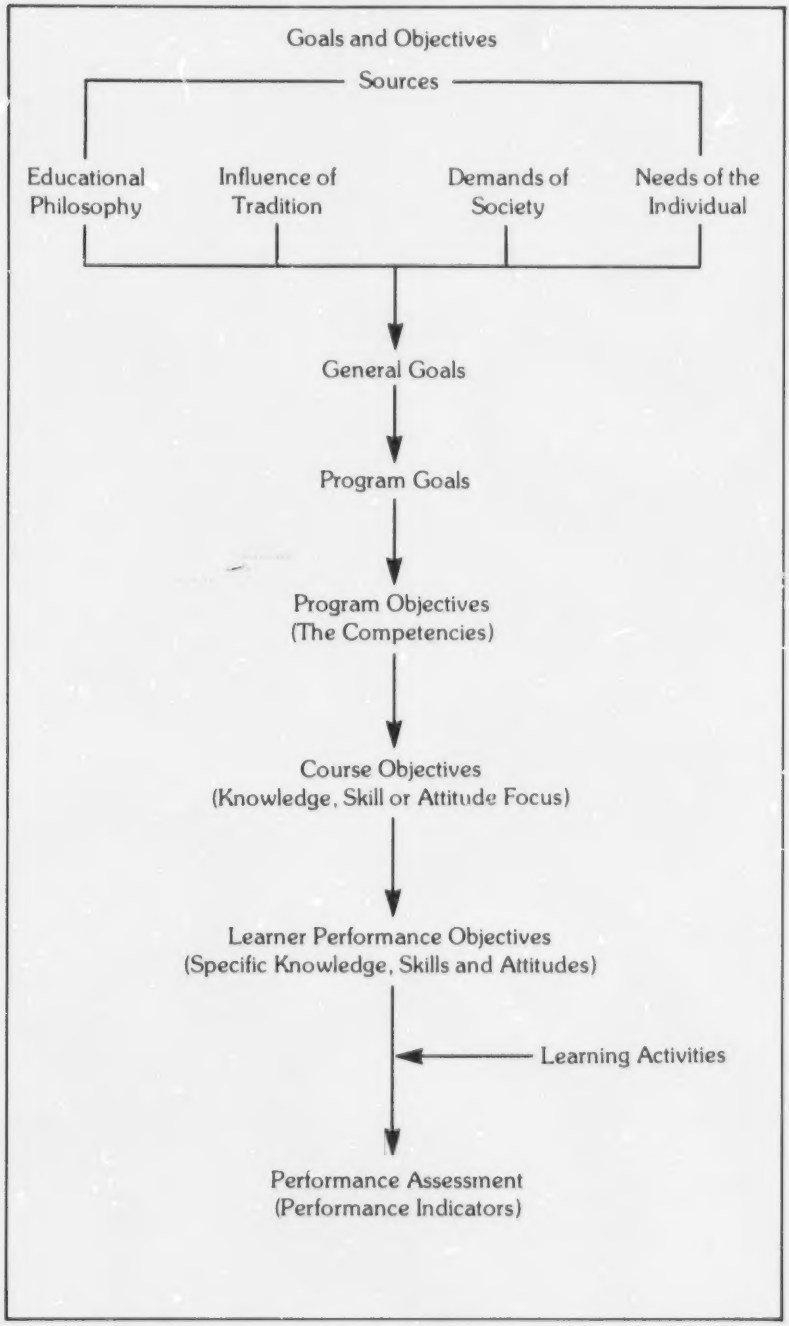

Figure 2. Competency-Based Education
Sample Goals and Objectives

General Goal:

Command of fundamental processes: *communication skills*.

Program Goal:

The goal of the language arts program is to develop skills in communication through *reading*, writing, listening, speaking, discussing, analyzing, viewing, non-verbal expression, and creative projects, and through the use of these skills to foster a greater understanding and awareness of self and one's fellow man (appreciating).

Program Objective (competencies):

To survive and grow as a person, each student must develop *basic skills in reading*.

Course Objectives (concept, skill or attitude focus):

- The student will follow directions accurately.
- *The student will understand what he reads.*
- The student will read with a speed suitable to his age.
- The student will locate and use information effectively.
- The student will read representative selections of and understand the genres of: short story, novel, non-fiction, poetry, drama, and magazine article.

Performance Objective (specific learning outcomes):

The student will identify information or ideas explicitly stated in a reading selection with 90 percent accuracy.

Evaluation (criterion-referenced testing):

Read the following article carefully. Then respond to items 167 through 174 indicating whether the idea in the test item *agrees*, *disagrees*, or is *not suggested* in the reading passage.

In secondary schools, driver training is the most obvious type of performance assessment. The writing of an essay and the solving of an equation, however, are also performance tests. Competency can be measured by paper and pencil tests as well as by simulated performance.

Competency (or proficiency) tests are criterion-referenced measures. Glaser and Nitko define this approach to testing as follows:

A criterion-referenced test is one that is deliberately constructed to yield measurements that are directly interpretable in terms of specified performance standards.[2]

Criterion-referenced tests are not designed to determine an individual's relative standing in some norm group. Rather, they tell what an individual can or cannot do with certain specific requirements. Unlike criterion-referenced tests, most standardized achievement tests are survey tests designed for normative interpretations. It is possible, however, to use them as performance or proficiency measures. Cutoff scores or criterion levels can be set by a school district in defining the competencies it considers important. Teachers then can be asked to evaluate the individual items on the test for content validity, level of difficulty, and applicability to the competency to be measured.

Most measurement personnel, however, would probably recommend a specially tailored, criterion-referenced test to assess completion of the graduation requirements of a school district. The objectives to be achieved and the tests to measure them can be developed locally with success. They might even be developed by a region, parish, county, or state; but there is danger in a broader focus that local priorities will be overlooked.

The critical element of a performance test is its authenticity. Good performance tests are congruent with the tasks of life. They are functional rather than speculative. Performance tests may be simulated, of course, but the simulation should mirror reality. Certainly they should involve the *application* of skills and knowledge.

The term "functional literacy" usually applies to performance tests that measure competency in reading and writing. Examples of functional literacy include, for instance, understanding a lease or contract, reading a newspaper, summarizing a driver's license manual, explaining a chart, or following written directions. Performance tests in reading and writing ordinarily do not include decoding new words, speculating about a story plot, or using syllabication skills.

Competency tests can be used to measure a wide spectrum of behavior. They can be applied to specific jobs in specific settings, to basic educational skills such as addition of numbers, or to more general capabilities such as reading level. The scope of their use depends upon the objectives at hand.

The effective use of competency-based education, then, depends upon a clear understanding of objectives, and a precise statement of the behaviors that demonstrate the required competency levels.

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2. Glaser, Robert and Nitko, Anthony J., "Measurement in Learning and Instruction," in Robert L. Thorndike (Ed.), *Educational Measurement*, American Council on Education, Washington, D.C., 1971, p. 653.

The amount of time available to students may vary in competency-based education, but achievement is held constant. Identical criterion levels are established for related test groups. As objectives change, of course, the criterion levels may be adjusted to meet new situations.

Since competency-based education emphasizes the achievement of specified objectives and not the ranking of learners, schools ought to provide a variety of instructional routes for students. One major thrust of competency-based education, therefore, is to provide a diagnostic/prescriptive environment for learning.

Clarifications

Secondary education has been moving toward competency-based, criterion-referenced education for more than 20 years. Beginning with programmed instruction in the early 1960s, then moving to a focus upon behavioral objectives, the accountability movement and the whole educational reform thrust of the late 1960s and early 1970s, and followed by the current interest in "outcomes" and back-to-basics, we have witnessed a steady evolution toward competency-based education.

Many educators have defended the fairness of criterion-referenced measures. As concern for equality of opportunity grew in America, normed tests came under increasing criticism. This outlook, together with a new emphasis on consumerism and a thrust by the profession itself toward individualizing education, led logically to a growing interest in performance tests as measures of individual progress. It was only a small step from there to begin using these measures to verify basic skills as a part of the graduation requirements.

CBE is a movement whose time has come. Not only public pressure but new evidence from contemporary learning theorists suggests that educators can redesign approaches to learning in ways that will guarantee students at least minimal competence in basic skills.

Highly applicable are the findings of Benjamin Bloom and his colleagues in mastery-learning research. Bloom has given educators a new working assumption: If students have the necessary prerequisites for a particular learning task, up to 90 percent of them can learn the material. His findings suggest that educators can no longer automatically blame the student for failing to learn. The educator must also look at the instructional system since the cognitive entry level of one's learning accounts for up to 64 percent of a person's ability to learn a given set of materials. If a student must approach a new learning task without an adequate grasp of previous material, he/she is

handicapped from the outset. Diagnosis and remediation are not options in the learning process, then; they become absolute necessities.

Bloom has shown that after grade three, prediction of the level of achievement at grade 12 is +.70 or higher. By grade three, the correlation between general measures of achievement at adjacent years is +.90 or higher. In short, learning achievement is largely determined by the extent to which students possess the prerequisite skills, the cognitive and affective entry characteristics necessary for subsequent learning tasks.[3]

The Meaning of the Diploma

It is apparent that several factors have contributed to the CBE movement. But the question can still be asked: How does CBE differ from its predecessors?

The verdict in the *Peter Doe* case insinuated that the high school diploma in fact had little meaning. What is the real import of the diploma today? What does it mean?

A conventional secondary school diploma signifies a number of things, not all of them truly meaningful. The diploma implies that the holder:

- Is about 17 or 18 years of age;
- Has met minimum district or school attendance requirements;
- Has been exposed to about 20 high school courses and collected 18 to 23 Carnegie Units of credit;
- Has received at least "social pass" grades in required subjects; and
- Has exhibited sufficient good citizenship (or acceptable docility) to avoid any serious disciplinary problems.

Not an imposing list, but likely the reality in many districts. This reality along with the previously mentioned sociological and educational pressures, has led to the emergence of a strong CBE thrust. Specifically, competency-based education represents the first concerted attempt of the public and the profession to relate learning outcomes to life roles and to make the successful demonstration of some of these outcomes prerequisite to earning a high school diploma. Advocates of the movement submit that CBE guarantees additional meaning to the diploma in no less than two ways:

3. Bloom, Benjamin S., *Human Characteristics and School Learning*. New York: McGraw-Hill Book Co., 1976, pp. 39-41 and 168-171.

- That a student has demonstrated at least a minimum level of competence in the basic skills of reading, writing and computing.
- That a student has not only "covered" certain academic content, but has actually learned it.

The Federal Government and Basic Skills Legislation

A bill introduced into the 95th Congress by Representative Ron Mottl of Ohio would have created a National Commission on Basic Education. The Commission was to set basic standards in reading, writing, and mathematics and to develop tests that would measure at appropriate levels whether students were meeting the standards. Most educators opposed the bill because they saw it as an unnecessary intrusion of the federal government into what states and local districts were already doing. The bill died in its original form but some of the concepts are incorporated in current legislation (ESEA, Title II).

Regulations are now being drafted to implement the 1978 Elementary and Secondary Education Act (ESEA). Of particular relevance to the CBE issue is Title II on basic skills improvement and Title IX, Part B on state grants for proficiency standards. Both the Department of Health, Education and Welfare and Congress are talking coordination of *existing programs* in basic skills; but many educators still fear that, at root, the federal arm is interested in writing control into the ESEA regulations. The First Annual Basic Skills Conference sponsored recently by the U.S. Office of Education (USOE) stressed the importance of "let's not add on," that projects should stress mutual planning and sharing rather than new efforts. The law, nevertheless, includes among basic skills "effective communication, both written and oral" (along with the usual reading and math). But at the present time, criteria in written communication are certainly not normative and whatever standards that exist in oral communication are at the primitive stage.

It would seem that any attempt to control proficiency standards at the federal level, even in the basic skills, is doomed to failure. There is little agreement at state and local levels as to what constitutes adequate proficiency in basic skills. The issue is further clouded when other proficiencies are included in any list of graduation requirements. Most educators view some form of basic skills requirement for graduation as acceptable, even desirable, but almost all are equally convinced that the federal government should not try to set national competency standards, whether as requirements or as conditions to ESEA aid. NASSP's Executive Director Owen B. Kiernan stated the point succinctly:

We question the constitutional legitimacy of the federal government's intervening in the states' responsibility of educating their citizens. Traditionally, education has been—and we believe it should continue to be—a local function, a state responsibility, and a federal concern. To force the federal government to assume a nationwide administrative and/or supervisory role in this delicately balanced triumvirate does violence to the partnership. . . . We might add, if the federal government were to take a hand in educational accountability, that it should be in a supportive role, e.g. aiding financially in the development and evaluation of better standards, perhaps research assistance in the testing process. But we oppose the development of a national standard, or any suggestion of a federal curriculum.[4]

Gordon Cawelti of the Association for Supervision and Curriculum Development has suggested that the present attitude toward basic skills and proficiency standards at the federal level may represent "a naive hope on the part of the feds that more testing will improve achievement." In other words, many educators fear that federal officials see a solution to the problems of student achievement simply in collecting more data and putting on more pressure at the state and local levels. Nothing could be farther from the truth. Proficiency testing is indeed a valuable diagnostic tool, even one of accountability, but an acceptable assessment format must reflect locally agreed upon learning objectives and standards of proficiency acceptable to the local community.

The States and Competency Requirements

Aside from the high school equivalency test developed by California and a national use of the General Educational Development (GED) test, only the state of Arizona required verified competencies for graduation as early as 1976. To receive a diploma in Arizona, students must demonstrate a ninth grade reading level. Since then, Oregon has mandated competency-based graduation requirements for the class of 1978 and the states of Florida, New York, and North Carolina have standards that become effective in 1979.

4. Statement made to the Congressional Subcommittee on Elementary, Secondary and Vocational Education of the Committee on Education and Labor, House of Representatives, September 20, 1977.

New York, of course, already administers the Regents Examinations and awards the Regents diploma to students successfully meeting the standards, but this program affects only the state's college preparatory graduates. Other states currently are more interested in establishing basic standards for a single diploma rather than initiating a special diploma which reflects high scholarship. There is some movement in individual districts and schools toward multiple or diversified diplomas, but it is too early to predict whether the trend will become more widespread.

In 1969, the California legislature enacted minimum requirements in reading and mathematics, thus becoming the first state to establish a specific level of achievement for the high school diploma. The requirement was repealed, however, because of much opposition and some loopholes in the law. Many persons objected to all school districts in California being required to meet a single standard. A law was then passed specifically forbidding state authorities to adopt statewide minimum standards for high school graduation. Rather, the state was authorized to propose examples of such standards for distribution, as informational models, to local school districts.

Currently, California requires that districts refuse a diploma to any student not meeting locally adopted proficiency standards. Effective January 1, 1979, local districts are also required to have alternate means for students to complete the prescribed course of study. These regulations reflect the general tenor of the recommendations made by the California Commission on Reform of Intermediate and Secondary Education (RISE, 1975). The RISE commission report recommended that the learner's progress in an instructional program should depend on *demonstrated proficiency* in achieving specified educational outcomes. This concept of "demonstrated proficiency" now motivates most of the efforts in the various states to establish a CBE approach to high school graduation.

Movement toward a competency-based diploma has been spectacular in several states. Five years ago only a few states showed a serious interest in verified competencies for graduation. Today well over half have some form of competency requirement, with many other state rulings pending. State efforts tend to fall into three broad categories which are actually developmental or taxonomic. The more sophisticated programs include and build on the more basic approaches.

(A) A large number of states have opted for a strictly "basic skills" approach of reading, writing (or communication) and mathematics, certified by some form of proficiency testing. States in this category include New York, North Carolina, Florida, Tennessee, Kansas, Idaho,

Arizona, and others. This is and will continue to be the most common approach.

(B) A smaller group of states is concerned with a "life or survival skills" approach that requires a range of minimal competencies thought essential to an effective adult life. Pennsylvania, Virginia, and Maryland favor this approach. Maryland's "Project Basic" is a worthwhile example. There are five areas of "human activity" in the Maryland plan that will receive a competency base:

- *The basic skills of reading, writing, and the ability to calculate.* The rationale is that no person can function as a citizen, a consumer, or an employee without these fundamental competencies.
- *The world of work.* Economic security and a sense of identity are closely tied to what we do for a living. Young people need a variety of skills and attitudes that will support success in the job world.
- *The world of leisure time.* Preparation for constructive use of leisure demands some proficiency at least in lifetime sports and in the arts.
- *Citizenship.* Growth toward useful citizenship involves many components but of primary importance are understanding and participating in our legal and judicial system, in the political process, and in relationships within our pluralistic society.
- *Survival skills.* Adults today need a range of skills to cope with the daily challenges of our post-technological world including consumer economic skills, parenting skills, certain mechanical competencies, and some interpersonal relations skills.

(C) A third group of states, small at present but growing, focuses on a total learning system approach to competency. These states, exemplified by Oregon, California, and more recently the District of Columbia, are committed to establishing an integral functioning teaching/learning system that will support the development of life-oriented skills. Educational leaders in these states not only want a competency-based curriculum and evaluation process, but also a responsive learning environment that will make minimum competency a realizable goal for *all* students.

Oregon has been a pioneer in this more comprehensive approach to CBE. As early as 1969-70, Oregon conducted a broad needs assessment study and held town hall meetings throughout the state to permit citizens to express their priorities for education. New state

graduation requirements were adopted in 1972 and included as part of the minimum standards for public schools mandated in 1974 and revised in 1976.

More than a decade of effort has surfaced common agreement on the need for *locally* based implementation efforts, for clear goals and student outcomes, for alternative paths in meeting graduation requirements, and for continuing interaction among all interested parties.

(1) *Educational Goals*. The Oregon plan sees every student having the opportunity to learn to function effectively in the six most common life roles: the Individual, the Learner, the Producer, the Citizen, the Consumer, and the Family Member.

(2) *Educational Program*. Each life role suggests certain knowledge, skills, and attitudes. Students are to have opportunities to achieve these outcomes through procedures to:

(a) Identify individual learning strengths and weaknesses;

(b) Provide learning opportunities responsive to student needs;

(c) Determine and record student progress and report this information to parents and students.

(3) *Graduation Requirements* are mandated in three areas:

(a) *Attendance provisions* that are essentially conventional except that local boards may adopt options such as early or delayed graduation, credit by examination, and off-campus or independent study learning experiences.

(b) *Credit Requirements* totaling a minimum of 21 units in grades 9 through 12, to include the following "areas of study":

1) Language Arts/English — 3 units
2) Mathematics — 1 unit
3) Social Studies/History — 1 unit
4) Citizenship/Government — 1 unit
5) Science — 1 unit
6) Health Education — 1 unit
7) Physical Education — 1 unit
8) Consumer Education/Economics/Personal Finance — 1 unit
9) Career Education — 1 unit
10) Electives — 10 units.

Local boards may alter the number of elective credits and establish additional requirements beyond the minimum number. Of particular interest here are the mandated credits in consumer finance and career education.

(c) *Performance Requirements* in 13 categories. Student transcripts must record the demonstrated minimum competencies necessary to:

1) Read
2) Write
3) Speak
4) Listen
5) Analyze
6) Compute
7) Use basic scientific and technological processes
8) Develop and maintain a healthy mind and body
9) Be an informed citizen in the community, state and nation
10) Be an informed citizen in interaction with the environment
11) Be an informed citizen on streets and highways
12) Be an informed consumer of goods and services
13) Function within an occupation or continue education leading to a career.

Verification of student competencies in the first six categories was required for the 1978 graduating class with all 13 mandated for the class of 1981. Local school boards may establish whatever performance indicators they feel will serve as evidence of competency in all these areas.

Local Districts and Competency Requirements

A number of local school districts, sensing a grass roots desire to establish "standards" for the diploma, have initiated competency tests. Denver moved early, requiring for 15 years that graduates demonstrate proficiency in four areas: (1) language, (2) reading, (3) spelling, and (4) arithmetic. The Denver schools have also maintained course credit requirements.

The proficiency tests in Denver are initially administered during the first semester of the ninth grade. For students who fail this first evaluation, remedial classes are established. Students are retested later. By the senior year only one and a half percent of the class does not reach the desired level of competency on one or more of the tests. Certificates of attendance are presented to students who have not passed the competencies or the required number of courses but who have established records of adequate attendance.

Other school districts also have tended to combine competencies with course work as requirements for graduation. The board of education of the Westside Community Schools, Omaha, Nebraska, adopted in 1974 graduation requirements that include seven areas of minimum competency as well as course credit. For a Westside diploma, competencies must be demonstrated in (1) reading, (2) writing, (3) oral communication, (4) mathematics, (5) consumerism, (6) the democratic process, and (7) problem solving.

The Westside schools administer the mathematics competency test in the ninth grade as a diagnostic tool. It is then re-administered in the eleventh grade. Students who do not pass all of the 17 math competencies required to graduate are channeled into individual remedial assistance as needed.

The written communication test is administered to all sophomores upon entering their first class in English. Students who do not demonstrate adequately a written communication competency during the first semester continue to work with their classroom English teacher until they have satisfied that requirement.

The consumer competency test is given to all sophomores. Students have several additional opportunities throughout the next three years to pass this test, including the option of taking an individualized consumer education course. By passing the course, students also meet the competency requirements.

The test in reading is administered to ninth grade students the second semester. Students who do not make a score of 40 or above on a Gates McGinitie Reading Test, Survey E, are then placed in a developmental reading program for remedial work.

The test in democratic process is administered to juniors in U.S. History classes. Students must score at least 80 percent on a staff-developed test to be considered as passing the democratic process competency. Problem-solving ability is evaluated the second semester of a student's junior year, also in the U.S. History class. Students must demonstrate the steps of problem solving to the teacher by the end of that course.

The oral communication test is administered to second semester sophomores through the teacher-adviser program.

The Gary, Indiana, Board of Education adopted a resolution in September 1974, to develop criterion-referenced exams to assess student competencies in reading, writing, spelling, and mathematics. The reading test was administered to eleventh grade students for the first time in January 1976. The requirement to successfully complete the reading test goes into effect with the class of 1977. Tests in the three other areas are under development.

The Nebo School District, Spanish Fork, Utah, has instruments to verify competencies in career education, music, typing, physical science, geography, mathematics, home economics, English, and art.

The Salt Lake City School Board of Education adopted as a priority goal for the 1975-76 school year the establishment of competency-based instruction and the initiation of programs to verify achievement prior to graduation from the Salt Lake City School District. By the fall of 1976 the school district shall have developed a series of competency examinations for students in the areas of English and mathematics.

The Los Angeles Board of Education in January 1976, passed a requirement that all candidates for high school graduation must demons rate proficiency on a reading test sufficient to affirm that the graduates read and comprehend at a level adequate to survive in society.

The Anchorage Borough School District adopted in August 1975, two proficiency requirements for graduation: basic English skills and math skills. Students are evaluated during the third quarter of the tenth grade. Students not meeting the proficiency requirements based on this evaluation are required to enroll in, and pass, special remedial courses which stress basic skills in both these subject areas.

Parkrose School District No. 3, Portland, Oregon, has developed several instruments to verify graduation requirement competencies in mathematics and writing.

Duval County, Florida, has developed a new Functional Literacy Test (including computation problems) to verify the basic skills required for graduation.

Greensville County, Virginia, has adopted a program of minimum standards reaching from the elementary grades through high school.

Phillips Academy, Andover, Massachusetts, requires students to demonstrate competencies in reading and writing. Students must satisfactorily confirm these competencies in English class to qualify for graduation.

The Craig City School District, Craig, Alaska, has dropped the Carnegie unit in favor of a spectrum of performance objectives. As a student masters a specific set of objectives, credit is granted toward graduation. Mastery is determined by performance tests along with other measures.

The St. Paul Open School, St. Paul, Minnesota, has also stopped basing course credit on Carnegie units. Instead, St. Paul Open School substitutes verification of experiences and competencies as requirements for graduation. Students prove their ability in each of six general categories to fulfill graduation requirements.

Designing and Using Competency Tests

Many schools are interested in the design and use of competency measures. Most paper and pencil tests available today, however, do not measure "survival skills" or "enabling competencies." Educators need to develop, then, these testing devices and procedures. A measure of student performance on tasks critical to functioning in a complex society is a significant measure, indeed.

Expecting high school students to demonstrate proficiency in important areas of the curriculum is consistent with good educational practice. Little controversy exists on that point. The issues raised about competency testing focus upon other matters such as the definition and determination of the proficiency levels to be required. To establish and define proficiency levels the goals must be clear, precise, and understandable. Without a clear statement of goals, competency tests can become a quagmire.

The use of the test must be considered. Will it be applied as an indication of general knowledge or as a demonstration of specific minimums? Will the tests be linked to graduation? Or, will passing the test result in a certificate, an additional credential, or an endorsement on the traditional diploma?

Since schools want proficient graduates, the administration of a competency test should be timed well in advance of graduation. When students do not reach the minimum level of competency, schools must respond with remedial programs to help the student reach these minimum levels. The payoff for competency testing is in appropriate remediation for students lacking essential competencies.

Competency tests should serve not only as an opportunity for students to identify deficiencies and to demonstrate important skills but, more importantly, to provide an impetus for revising program sequence and content to help students reach desired levels of proficiency. The purpose of competency tests is to "screen in" students, not to screen out students.

Intimately connected to the question of purpose for the tests is the problem of defining "proficiency." Will the school test proficiency in skills and knowledge learned in school or test the application of learning to tasks which are required outside school? Or, will the school test both areas?

The minimum acceptable level of proficiency or achievement must be established. Will that minimum be pegged at a certain grade level equivalent on a standardized test? If so, what grade level is acceptable? Or will the minimum level be 100 percent accuracy, or 90 percent accuracy, or 70 percent accuracy on a test of skills or behaviors to be learned by the student? Or will results be reported on

a "pass/fail" basis? Or will they be defined at specified levels of competency above base line requirements?

While criterion levels are absolute, they are not always *a priori*. They are generally based on experience, and their absoluteness is always related to a specific time and situation. When one uses competencies, criterion levels change as society changes and as the situation demands. New hypotheses are formulated and tests constantly re-examined as information is gathered.

School systems must not confuse norms with standards of competency. The purposes of the tests need to be kept clearly in mind. One cannot assume that a test designed for one purpose can satisfy another purpose. In addition, the content validity of tests must be assured. Schools should make certain that proficiency tests measure behaviors that reflect the learning opportunities of students.

In summary, the use of competency measures to determine the attainment of objectives sought involves five considerations. These include:

- Agreement as to the kinds of indicators to be used as evidence of achievement.
- Agreement as to the ways achievement will be documented.
- Agreement on the levels of outcome desired.
- Agreement on the procedures to be followed in judging performance.
- Agreement on remedial processes, as needed.

Currently there appear to be two general approaches to developing proficiency tests. One practice is for individual schools or school systems to develop instructional objectives and then to write test items which meet these objectives. Test items can reflect noncognitive as well as cognitive outcomes.

A second practice is to tap existing pools of test items. Test items appropriate to examine various competencies are being developed by a number of organizations including Educational Testing Service, Westinghouse Learning Corporation, the UCLA Center for the Study of Evaluation, and the Clearinghouse for Applied Performance Testing. (Cf. Appendix C).

Either approach may be used successfully. The important issue is not the source of the test items, but their appropriateness to the performance being measured.

Test experts generally agree that the chief difference between criterion-referenced tests and norm-referenced tests is that criterion-referenced tests are used to determine what a student knows rather

than how he ranks on a scale with other students. Persons who favor criterion-referenced tests list these advantages:

- They are good ways to assess desired achievement if objectives have been clearly stated.
- They can report a larger amount of specific and detailed information on pupil competency than can other, more extensive instruments at a given cost.
- They emphasize mastery of specifics by pupils, although some arbitrariness can exist in the definition of mastery and in the choice of specifics to master.
- They are meaningful measures of achievement in that they establish a common standard for all.
- They allow the freedom for the criteria in one locale to be different from the criteria in another.
- They have the obvious advantage of providing direct instructional feedback.

Competencies and Courses

Broadly stated, the general purpose of secondary education is twofold: (1) to nourish the talents of each individual, (2) to develop in students common attitudes and competencies sufficient for society to function.

Many skills can be measured by tests of competency. Complex behaviors, however, are more difficult to gauge. The determination of educational inputs and the measurement of outputs is still an indefinite science in the affective realm. The documentation of planned experience, therefore, remains a useful measure to school systems desiring that the diploma reflect more than demonstrated proficiency.

Such school systems argue that indicators of performance can strengthen the evaluation process but they are insufficient by themselves as criteria. They do not constitute a complete education. Measures of performance need to be paired, some schools believe, with verification of experience to document a comprehensive education. Among the experiences important to learning under this philosophy is the opportunity to study and work in a group environment. The discussion, the response of others to one's actions, the completion of tasks, the assumption of responsibility for others, and participation in a collective enterprise, all contribute significantly to a social and intellectual preparedness for adulthood.

Schools using credit requirements believe that the world into which youth graduate, the world of employers and of institutions of higher education, wants more than cognitive and psychomotor proficiency. This world is also seeking, these schools believe, certain social qualities such as maturity, dependability, and the ability to work constructively in a group setting. The realm of experience as well as of achievement, it is argued, is important to the value of the high school diploma.

The graduate should possess enabling skills that are social as well as personal. The socialization dimension of education and the experiential dimension of learning necessitate, according to many educators, the use of units as well as competencies for credit verification.

Finally, persons who propose that course credits be a part of graduation requirements assert that while some products of experience may be measured, other products may not be so easily evaluated by measurement. Many persons capable of passing an examination on sailing or mountain climbing would find themselves in deep trouble when their knowledge was tested by Mother Nature. Documentation of the successful completion of a field experience, in this instance, might prove to be a more reliable measure than other forms of examination—and so with many courses and programs in the curriculum. The benefit of actual experience can be central to education. In sum, the diploma should reflect more than academic competency; it also must encompass the personal growth and development of the student.

The traditional credit system has the advantage of flexibility, course by course, as well as ease of documentation. Educationally, it also accommodates individual interests. The disadvantage of the credit system centers around the problem of inconsistent standards. Quality may bear little relationship school by school.

A second approach to verification, that of competency measures, allows for specific examination of skills. It also has the advantage of requiring careful thought about the course objectives and of the competencies to be measured. This approach can bring a certain honesty to the diploma. It can define precise expectations and report to parents, the school, and the public whether or not these expectations have been attained.

The use of competency measures for graduation suggests some possible positive and negative outcomes.

Possible Positive Outcomes:

- The question, "What is a high school education?" must be squarely faced.
- The statements required for each course will likely result in care-

fully organized teaching and carefully designed sequential learning.

- Slow learners and underachievers will likely receive direct and immediate attention.
- Courses of study will likely be revised to correct identified deficiencies.
- Subjects leading to the development of competencies will receive additional emphasis.
- Alternatives and options not requiring attendance in class will likely be broadened.
- The senior year may gain more holding power because of a new focus upon requirements and options.
- The community will know the minimum performance required in specific subject areas for the diploma.

Possible Negative Outcomes:

- Confusion over the meaning of a high school diploma will continue if each district identifies its own level of competencies and performance indicators.
- The emphasis on pragmatic and practical competencies *may* result in erosion of liberal education.
- The emphasis on measurable outcomes could result in less attention to outcomes which are difficult to measure.
- The record-keeping system could become burdensome to teachers and administrators.
- The conflict between "humaneness" and "accountability" may be intensified as criteria are established and clarified.
- Community disagreement may arise over the nature and difficulty of competencies.
- Dropouts could increase depending upon the level of the minimum competencies.
- Expectations for an improved product could exceed actual performance.

Some schools have cautioned about developing ambitious lists of competencies. Keeping account of large numbers of competencies may become burdensome. A point of view has developed, therefore, that if competency measures are used, they should focus upon the more fundamental skills. The greater the application of the skill, the more valuable it will prove to the graduate. Thus, one criterion applied to determine the inclusion or exclusion of competencies as graduation

requirements should be usability in life. The diploma should not be submerged in a sea of specific competencies difficult to apply and burdensome to evaluate. Rather, generalized competencies should receive priority.

Some educators believe that qualification for the high school diploma should include verification by course and by competency. The use of both approaches, they feel, would strengthen the measurement process and add authenticity to the diploma. Competency measures would be used to evaluate skill proficiency; credits would be used to document completion of courses and programs. Together, it is argued, they make the evaluation picture complete.

Graduation Requirements

A new awareness exists that graduation requirements should reflect in some way the public's minimum expectations for secondary education. Whatever constitutes the diploma affects the curriculum. Requirements for graduation become, in part, standards for learning; they shape the outcome of schooling.

The NASSP Task Force on Graduation Requirements holds that the criteria for a high school diploma should be distinctive, representing an accomplishment independent of other factors. It must stand on its own merits. A diploma should not necessarily mean that the holder is prepared for a job, states the task force, nor should it particularly signify that the holder is ready for college. Rather, the diploma should certify that the graduate possesses the baseline skills and knowledge essential to an effective adult citizenship.

Expanding upon this viewpoint, the task force believes that effective adult citizenship involves some degree of self-sufficiency. The diploma, therefore, should signify that the holder *possesses the skills to acquire the information necessary to be a citizen and a worker.* The graduate should be a person prepared to learn on his own, an educationally independent being possessing a set of basic competencies allowing for life to be pursued in an informed and productive manner.

Continuing this argument, the NASSP task force recommends that graduates be *competent in the basic skills at a level sufficient to learn job specifications or to pursue the requirements to enter postsecondary education.* The graduate, having acquired the skills to learn independently, then becomes free to direct himself as interests and circumstances dictate. He will have reached the "takeoff point" in education, casting away dependency and allowing for an autonomous pursuit of choices which lie ahead.

Finally, the task force proposes that the graduate should also be sufficiently knowledgeable about democratic processes and experienced in group discussion so as to be an informed voter, capable of functioning in the local community. The enabling skills which allow a person to participate in society are not only cognitive, but social as well.

The diploma requirements, according to the task force, should, therefore, include these verified attributes of the graduates:

- an ability to read, write, and compute with specified proficiency;
- an acquaintanceship with the American experience, to include an understanding of the process and structure of democratic governance;
- the successful completion of a series of courses and/or planned experiences, some of which involve a group setting.

Concerning the question of the verification of these requirements, the NASSP task force believes in using two specific approaches:

I. To be verified by competency measures:
   A. Functional literacy in reading, writing, and speaking.
   B. Ability to compute, including decimals and percentages.
   C. Knowledge of the history and culture of the United States, to include the concepts and processes of democratic governance.

Functional literacy concerns the performance of tasks representative of adulthood. These tasks include the ability to locate information, to summarize paragraphs, to interpret maps and tables, to follow written instructions, to understand basic manuals (e.g., for the driver's license), and to corroborate written information.

Ability to compute includes an application of the appropriate operation to problems as well as an understanding of the computational process itself.

Knowledge of the American experience focuses upon the central political, economic, and social events of the nation as well as understanding the precepts of democracy and its processes in action.

II. To be verified by units or credits
   A. Successful completion of credits or units equal to a regular student course load extending through the first semester of the senior year.
   B. Sufficient attendance in courses and programs to gain fully the educational and social benefits of group situations.

The number of units required for graduation should be sufficient to ensure a thorough education, yet not be so large or inflexible as to preclude early graduation should that be the desire of students and

their families. The number of units required should also not be so large as to prevent the graduation with their class of students who have failed one or two courses. Thus, the requirements should be somewhat less than a regular student course load carried through the second semester of the senior year.

According to the NASSP task force, attendance in educational settings is an important component of learning for youth. Good attendance benefits youth academically as well as socially, it is argued. Group learning assists students to communicate, to work together, to gain perspectives, and to accept responsibility—all important components of adulthood. Also, good attendance at work is expected and rewarded in the adult world. A habit of consistency, therefore, is a beneficial behavior for youth in the long run, the task force asserts.

The task force on graduation requirements also recommended the use of certificates of competency. These certificates would be awarded to all students whether or not the requirements of the diploma are met. Every student who leaves school, whether by graduation, by "stopout," or by "dropout," would receive a certificate indicating a specific level of competency in the four required areas of reading, writing, mathematics, and American civilization. For some students the certificate would indicate achievement well into the college level. For other students the certificate might indicate achievement at the fourth or fifth grade level.

For the nongraduate these certificates would be seen as an interim record of progress. By receiving something upon leaving school, rather than nothing, it was felt the student might be encouraged to return to complete his education.

Two Central Concerns

The current interest in competency tests as graduation requirements comes face to face with two central problems, one primarily administrative and one essentially philosophical.

The administrative question involves the grade level at which competency tests, if used, should be administered. The schools currently using competency tests advise early testing, preferably at the ninth or tenth grade level. An early diagnosis allows students to be given remedial programs in sufficient time for the required proficiencies to be achieved before the end of the senior year. A central purpose of competency tests is to identify and remediate educational deficiencies for the benefit of the individual as well as to assure society of some minimum competencies.

The second, more philosophical question concerns the matter of what happens to students who do not qualify for a competency-based diploma. If a single diploma is issued to all students regardless of competency level, then the citizens, the students, and the schools are all back to the beginning—the diploma "has no meaning."

To recognize students who have spent four or more years in high school, but who still lack certain competencies, various suggestions have been made. These include:

- special diplomas
- certificates of competency
- diplomas with endorsements certifying that the student has (or has not) met specified competencies
- certificates of attendance.

Whatever route is selected by schools for the diploma will likely draw some complaint because qualifications for the diploma fall precisely between two major requirements of American education: (1) the demand for excellence, and (2) the demand for equality.

Competency Tests in Current Use

A variety of competency tests are being used by local school districts and by certain states. Examples of test items from a selected number of tests are presented here for the reader's information. These items are illustrative, only; they are not definitive. The entire test in each instance must be reviewed to understand the range of competencies evaluated.

The National Association of Secondary School Principals wishes to express its appreciation to the schools and school districts represented by the test examples. Their cooperation allows the reader to view a wide variety of tests in current use.

Most performance tests are copyrighted, some by commercial publishers. Approval for the use of any test items in this publication, therefore, must be granted by the school, school district, or publisher holding rights.

Illustrations of Competency Tests

Mathematics

Numerical Proficiency, Form F, Denver Public Schools, Colo.

Math Test, Form Y, St. Paul Open School, Minn.

Diagnostic Test, Immaculate Conception Academy, Washington, D.C.

Mathematics: Graduation Requirement Competencies, Parkrose School District, Portland, Ore.

Reading

Functional Literacy Test, Form B, Duval County Schools, Fla.

Proficiency and Review, Test IV, Denver Public Schools, Colo.

Reading Proficiency Examination, School City of Gary, Ind.

Writing

Proficiency and Review, Test III, Language Proficiency, Denver, Colo.

Graduation Requirement Competencies, Form A, Parkrose School District, Portland, Ore.

Proficiency and Review, Test II, Spelling Proficiency, Denver, Colo.

Democratic Process

Democratic Process Minimum Competency Test I, Westside School District, Omaha, Neb.

Art

Art Test, Nebo School District, Spanish Fork, Utah

Art Study Sheet, Nebo School District, Spanish Fork, Utah

Music

Music Test for Junior High School, Nebo School District, Spanish Fork, Utah

Money Management

Consumerism: Student Handbook, Westside School District, Omaha, Neb.

"Proficiency and Review, Test I: Numerical Proficiency, Form F," Denver Public Schools, Denver, Colorado. Reprinted with permission.

TEST I: NUMERICAL PROFICIENCY

This test is designed to measure your understanding of concepts of arithmetic and your ability to perform the four fundamental arithmetical operations. It is divided into five parts: addition, subtraction, meanings, multiplication, and division.

DIRECTIONS: Solve each problem, doing all scratch work in your test booklet. Then select your answer from among the five answer choices listed to the right of the problem. Mark your answer on the answer sheet by blackening the circle containing the letter that identifies your choice. If you decide that the correct solution is not listed, indicate the fifth choice, "None," as your answer. Look at Sample A below.

SAMPLE ITEMS:

Sample A: Addition		Sample B: Division	
	A 200		F 1
400	B 300		G 9
+ 200	C 600	5) 50	H 12
	D 800		J 100
	E None		K None

In Sample A, the answer is 600. This answer appears in the list to the right of the problem, and is identified by the letter C. On the front of your answer sheet under the heading "Test I: Numerical Proficiency," you will find a box labeled "Samples," containing rows A and B. In row A, the circle containing the letter C has been blackened.

Now work Sample B. Mark your answer on the answer sheet in row B in the box labeled "Samples."

In Sample B, the answer is 10. This answer does not appear in the list to the right of the problem; therefore, "None" is the correct choice. It is identified by the letter K. On your answer sheet you should have blackened the circle containing the letter K in the row for Sample B.

When you are told to begin work, turn to page 4 and start the problems in addition. The answer to the first problem should be marked in row 1 of the column labeled "Addition" on your answer sheet.

DO NOT TURN THIS PAGE UNTIL TOLD TO DO SO

► Work the following problems in SUBTRACTION. Reduce fractions to lowest terms.

11 Subtract:

785
564

A 121
B 141
C 211
D 241
E None

12 Subtract:

831
377

F 454
G 464
H 546
J 1,208
K None

13

$15.00 − $12.24 =

A $2.86
B $3.24
C $3.76
D $3.86
E None

14 Subtract:

8,108
7,659

F 449
G 459
H 1,449
J 1,549
K None

15 Subtract:

$20.00
3.09

A $16.01
B $16.91
C $17.01
D $17.91
E None

16

$606\frac{7}{16} - 196\frac{2}{3} =$

F $409\frac{5}{7}$
G $409\frac{29}{30}$
H $410\frac{1}{30}$
J $419\frac{1}{30}$
K None

17

3.842 − 2.6 =

A 1.242
B 1.836
C 3.582
D 3.816
E None

18 Subtract:

$2\frac{2}{3}$
$1\frac{1}{2}$

F $\frac{5}{6}$
G $1\frac{1}{6}$
H $1\frac{1}{3}$
J $2\frac{1}{6}$
K None

19 Subtract:

4 hr.
2 hr. 55 min.

A 1 hr. 5 min.
B 1 hr. 45 min.
C 2 hr. 5 min.
D 2 hr. 45 min.
E None

20 Subtract:

2 ft. 1 in.
1 ft. 9 in.

F 2 in.
G 3 in.
H 4 in.
J 1 ft. 2 in.
K None

"Math Test, Form Y," St. Paul Open School, St. Paul, Minnesota. Reprinted with permission.

H. WORD PROBLEMS

(19) Tony took 5 spelling tests. Each test had 25 words. He spelled the following number of words correctly: 23, 19, 24, 22, 25. How many words did he get wrong altogether on the 5 tests?

(20) Augusta drives 3 1/2 miles a day and gets 14 miles per gallon of gasoline. How many gallons of gasoline does she use each week?

(21) Ellen wants to cut shelves from 8 feet lengths of boards. Each shelf is 3 1/2 feet long. How many boards will she need to buy if she plans to make 9 shelves?
(Hint: Draw pictures of the length of the boards.)

(22) Wendell will pay the lowest price per ounce for sunflower seeds if he buys them at a store which offers:

a. 15 ounces for 30¢ or b. 2 pounds for 60¢

30

(23) A gallon of paint is supposed to cover 400 square feet (if applied correctly). It is sold in gallon and quart cans. How many gallon and quart cans are needed to paint a room with 4 walls 9 feet high and 10 feet long?

(24) You borrow $15,000.00 at 11% simple interest for one year. How much money do you repay the bank at the end of a year?

(25) You have a bank balance of $8.34. You make a deposit of $23.87. A week later you wrote check for $5.42 and $1.82. What was your bank balance then?

(26) Curtains 5 feet 9 inches long are needed for a set of windows. Which of the following comes the <u>closest</u> to the length required?

(a) 48 inches (b) 60 inches (c) 72 inches

"Diagnostic Test—Basic Mathematics," used by Immaculate Conception Academy, Washington, D.C. Copyright Motivational Development, Inc., Bishop, California 93514. Reprinted with permission.

DIAGNOSTIC TEST

(Basic Mathematics)

You have only so many minutes to complete each section. You may do your work on scratch paper. Copy your answers into the spaces on the right hand side of the sheet. BE SURE TO COPY THEM CORRECTLY.

I. (5 minutes)

1. 328 + 789

2. 4982 + 68 + 8073 + 836

3. 62937 + 58185 + 07348

4. 24 + 380 + 6 =

5. 8427 + 400 + 18 + 302 =

1) _____
2) _____
3) _____
4) _____
5) _____

II. (5 minutes)

6. 573 - 491 =

7. 86542 - 76568

8. 7,000 - 5,296

9. 18888 - 9999

10. 4002 - 98 =

6) _____
7) _____
8) _____
9) _____
10) _____

III. (8minutes)

11. 487 X 53

12. 3726 X 28 =

13. 5207 X 304

14. 765 X 325

15. 27 X 2005 =

11) _____
12) _____
13) _____
14) _____
15) _____

DIAGNOSTIC TEST

(Basic Mathematics)

VII. (6 minutes)

31. .007 + 65.2 =
32. 1.4 + 00.6 + 60.01 =
33. 28.037 - .0032 =
34. 41.53 - 002.9 =
35. 5738 + 9.0032 + .055 =

31)_____
32)_____
33)_____
34)_____
35)_____

VIII. (6 minutes)

36. .002 X 87
37. .48 X 3.2
38. 12.3 X .046
39. $4.2\overline{)8.484}$
40. $.03\overline{)275.4}$

36)_____
37)_____
38)_____
39)_____
40)_____

IX. (6 minutes)

41. 57% of 23 =
42. $\frac{1}{2}$% of 20 =
43. 45 is 300 % of what?
44. What % of 25 is 5?
45. 3.5 is what % of 10?

41)_____
42)_____
43)_____
44)_____
45)_____

X. (5 minutes)

46. If a pie is cut into twelve equal pieces, three pieces would be what fraction of the whole pie? 46)_____

47. You bought a baseball for one dollar and forty-three cents. You gave the clerk $5.00. How much change do you get? 47)_____

48. In a golf game you started out with 4 golf balls. You lost 2 and found 5 more. How many did you end up with? 48)_____

49. You wish to make a board fence 12 feet long, and 6 feet high. How many 6 foot boards 4 inches wide will you need? 49)_____

50. You are to buy hot dogs for a picnic for thirty people. Each person will eat 2 hot dogs. How many packages will you need if there are 10 hot dogs in each package? 50)_____

33

"Mathematics: Graduation Requirement Competencies," Parkrose School District, No. 3, Portland, Oregon, 1975. Reprinted with permission.

23. The numerical equivalent of one hundred thirty two and two hundredths is:

a. 132.2
b. 130.22
c. 132.02
d. none of the above

IF A RECIPE GIVES THE FOLLOWING INGREDIENTS:

2 cups flour
1 $\frac{1}{2}$ cups sugar
1 tsp. baking powder
1 $\frac{2}{3}$ cups milk

24. Doubling the recipe would require:

e. 2 $\frac{1}{2}$ cups sugar
f. 2 $\frac{1}{3}$ cups sugar
g. 3 cups sugar
h. none of the above

25. Cutting the recipe in one-half would require:

a. $\frac{3}{4}$ cup sugar
b. $\frac{7}{8}$ cup sugar
c. $\frac{1}{2}$ cup sugar
d. none of the above

26. 5 is what percent of 2?

e. 250%
f. $\frac{5}{2}$
g. 40%
h. none of the above

27. If there are 20 students in a class, what percent of the class attended school on the day when 15 students were present?

a. 133 $\frac{1}{3}$%
b. 75%
c. $\frac{133\ \frac{1}{3}\%}{100}$
d. none of the above

28. 6% of 200 is?

e. .1200
f. 60
g. 12
h. none of the above

29. If the weather forecast is a 50% chance for rain, then:

a. rain is not expected
b. there is about an equal chance for either rain or no rain
c. it will more than likely rain
d. none of the above

30. If a die (one dice) is thrown, the chance of getting a six is:

e. about even
f. less than even
g. more than even
h. none of the above

31. If a student received the following scores on tests: 85, 92, 87, 64, and 96, what was the average score?

a. 78.5
b. 84.8
c. 85.8
d. none of the above

CONTINUE ABOVE

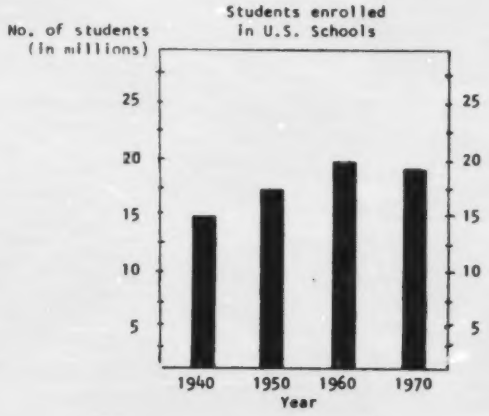
CONTINUE ON NEXT PAGE

32. If a free throw shooter's "average" is .810, then he makes about:

e. 8 out of 10
f. 9 out of 10
g. 2 out of 10
h. none of the above

33. Using the graph below, determine the approximate number of students attending school in the United States in 1960:

a. 22.5 million
b. 17.5 million
c. 20 million
d. 15 million



34. Using the same graph, when did student enrollment show a decrease?

e. between 1940 and 1950
f. between 1950 and 1960
g. between 1960 and 1970
h. none of the above

35. Using the circle graph below, select the correct response from the following statements.

a. more money is spent on food than all other items combined.
b. more money is set aside for savings than is spent on insurance.
c. it takes one-fourth of this family's expenditures to pay for shelter.
d. none of the above

STOP

"Functional Literacy Test, Form B," and directions from "Development of the Duval County Functional Literacy-Reading Test and Manual of Directions, Form B," Duval County, Florida. Reprinted with permission.

Number 46

On which of these pages would you find the word "nausea"?

REPEAT QUESTION. WAIT 10 SECONDS.

At the bottom of the page is the definition of the word "nausea." Notice that the different meanings are numbered. Listen carefully to the next question.

nature 312 **nectar**

2 To cause to grow in a region not native, as fruit.
na·ture \'nāch-r\ *n.* 1 The peculiar quality or qualities; as, the *nature* of steel. 2 Kind, sort, or type; as, things of this *nature*. 3 Character or disposition; as, a man of generous *nature*. 4 The physical universe; as, the study of *nature*. 5 Life; the workings of

as, one's *nearest* friend. 3 Not far away. 4 Close; narrow; as, a *near* escape from death. 5 Closely imitated; not real but very like; as, *near* silk. 6 Direct; short; as, the *nearest* way. — *prep.* Near to or by; close to or upon. — *v.* To draw near; as, to *near* home.
near·by or **near-by** \'nir-,bī, -'bī\ *adj. and adv.* Close at hand; near.

nimble 316 **noise**

nim·ble \'nim-bl\ *adj.* 1 Quick and light in motion; agile; as, a *nimble* movement. 2 Quick in understanding and learning; quick-

ni·tro·glyc·er·in \,nī-trō-'glis-r(-)ən\ *n.* A heavy, oily liquid explosive, from which dynamite is made.

northwest 318 **notify**

north·west \'nórth-'west\ *n.* 1 The direction halfway between north and west. 2 The northwest part or region. — *adj.* 1 Of or relating to the northwest. 2 From the northwest. 3 Toward the northwest. — *adv.* To-

notch \'näch\ *n.* 1 A V-shaped cut in an edge or surface; a nick. 2 A narrow pass between two mountains. 3 A degree; a step; a peg; as, to turn up the volume of the radio a *notch*. — *v.* To cut or make notches in.

46. A. 312
B. 316
C. 318

Number 47

nau·sea (nȯ'zhə or nȯ'sē ə), 1 the feeling that one is about to vomit. 2 seasickness. 3 extreme disgust; loathing.

47. A. 1
B. 2
C. 3

If you read directions on a medicine bottle that said "take for nausea" which of the meanings would apply?

REPEAT QUESTION. WAIT UNTIL ALL STUDENTS HAVE MARKED THEIR ANSWER SHEET.

Number 60

What number do you dial to contact the Police Department in an emergency if you live in Jacksonville?

REPEAT QUESTION, WAIT UNTIL ALL STUDENTS HAVE MARKED THEIR ANSWER SHEET.

	Jacksonville	Orange Park	Baldwin	Middleburg
	Fire 633-2211	264-3737	266-4233	282-5541
	Police Emergency Only 633-4111 Information 633-4202	264-9612	266-4221 or 266-4751	264-6512
	Ambulance Medical Emergency 633-2211 Emergency Ambulance 633-2211	633-2211 633-2211	633-2211 633-2211	633-2211 633-2211
	Florida highway patrol emergency only			355-9981
FBI	(Federal Bureau of Investigation)			355-1401
	U. S. Secret Service			791-2777
	other important numbers — poison control center			389-7751
	child abuse registry			725-8388
	crisis and suicide intervention			384-6488
	Florida Public Service Commission Local Office Consumer Services Tallahassee (Toll Free)			384-3451 1-800-342-3552
	office 633-6075 doctor home 778-2254 Dr. Jones (write your doctor's numbers here)			

60. A. 633-4111

B. 633-4202

C. 633-2211

D. 791-2777

"Proficiency and Review, Test IV: Reading Proficiency, Form F," Denver Public Schools, Denver, Colorado. Reprinted with permission.

TEST IV: READING PROFICIENCY

This test is designed to measure your understanding of reading passages and your knowledge of word meaning. It is divided into two sections: reading comprehension and vocabulary.

Directions and sample items for the reading comprehension section are on this page. The directions and a sample item for the vocabulary section immediately precede the vocabulary test items. When you reach the vocabulary section, read the directions and sample item; then continue working.

DIRECTIONS:

READING COMPREHENSION SECTION

The reading comprehension section contains three short reading passages. Each passage is followed by eight test items. Each test item is a statement about the preceding reading passage. After you have read the entire passage, study each test item and mark your answer sheet according to the following key.

KEY: On your answer sheet, blacken the circle containing the letter

- A if the idea stated in the test item is in AGREEMENT with the contents of the reading passage;
- D if the idea stated in the test item is in DISAGREEMENT with the contents of the reading passage;
- N if the idea in the test item is NEITHER STATED NOR SUGGESTED in the reading passage.

The following samples are based on the reading matter in the preceding paragraphs.

SAMPLE ITEMS:

Sample A The vocabulary section contains 26 items.

Sample B You are directed to read the entire passage before working the items in the reading comprehension section.

The idea in Sample A is NEITHER STATED NOR SUGGESTED in the preceding paragraphs; therefore, the answer is N. On the back of your answer sheet under the heading "Test IV: Reading Proficiency," you will find a box labeled "Samples," containing rows A and B. In row A, the circle containing the letter N has been blackened.

Now select your answer for Sample B and mark it on the answer sheet in row B in the box labeled "Samples."

In Sample B, the idea is in AGREEMENT with the preceding paragraphs; therefore, the answer is A. On your answer sheet you should have blackened the circle containing the letter A in the row for Sample B.

When you are told to begin work, turn the page and start reading the first passage. The answer to the first item should be marked in row 151 in the comprehension section on your answer sheet.

► **Read the following article carefully. Then work Items 167 through 174.**

KEEP U.S. YOUTH FIT

WASHINGTON, D.C.—Alarmed lest this turn into a nation of weaklings, the President sent a message to every school administrator saying why it is urgent that each student be physically fit.

This was followed by a second message, going to 144,000 schools, showing how this may be accomplished. In his message to school administrators, the President said: "Although today's young people are fundamentally healthier than the youth of any previous generation, the majority have not developed strong, agile bodies. The softening process of civilization continues to carry on its persistent erosion."

The kickoff of the physical fitness drive came in an executive order calling for a minimum of 15 minutes of vigorous activity each day in each school in the country.

Several studies show that American youth do worse on simple tests than youngsters of other nations. Samples: One test, which 57.9 per cent of the U.S. youngsters flunked, was given to a similar group in Italy and Austria. The Europeans had only 8.9 per cent failure. And on seven different tests given to boys and girls in the 10 to 17 age bracket, British girls ran ahead of American girls 7-0, while British boys won by 6-1. The U.S. boys were superior only in "arm power."

Not only are today's American youngsters behind youngsters of other countries, they're not so sturdy as their fathers were. Springfield College has been giving tests periodically since the 1920's, and national averages were established on the basis of these tests. Recently, not one school measured up to the national averages.

Studies also show that 72 per cent of the nation's schools have inadequate physical education programs.

KEY: On your answer sheet, blacken the circle containing the letter

A **if the idea stated in the test item is in AGREEMENT with the contents of the reading passage;**

D **if the idea stated in the test item is in DISAGREEMENT with the contents of the reading passage;**

N **if the idea in the test item is NEITHER STATED NOR SUGGESTED in the reading passage.**

167 The proposed physical fitness program requires a minimum of one hour's exercise during each school day.

168 European children do better on fitness tests than American youth.

169 Less than 10 per cent of a group of European children failed on a test which was flunked by over half of the American youngsters.

170 European youth develop physical skills not at school, but from hard work.

171 On physical fitness tests, U.S. youth were compared with youth in all European nations except Italy and Austria.

172 British boys scored lower than U.S. boys in "arm power."

173 The "softness" of today's youth is due to too many milkshakes, candy bars, hamburgers, and rich between-meal snacks.

174 Fathers of today's American youth were sturdier than their children are.

"High School Reading Proficiency Examination," specifically designed for the School City of Gary, Indiana, by Westinghouse Learning Corporation, 1974. Reprinted with permission.

32. Read this statement:

> Women should have the right to be educated to their full potential along with men.

If a person expressed this view, which ideas below would he or she most likely believe?

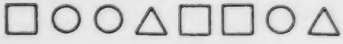
1. A woman's place is in the home.
2. Women should refuse to do any housework.
3. If women do the same work as men, they should receive equal pay.
4. Women should make all of the important world decisions.
5. Women and men should share household tasks.
6. It was a mistake to give women the right to vote.

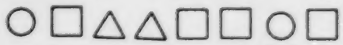
(A) numbers 1 and 6
(B) numbers 2 and 4
(C) numbers 3 and 5
(D) numbers 4 and 5

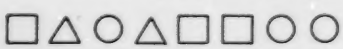
33. Follow the directions below to design a border. Use scratch paper to draw the border.

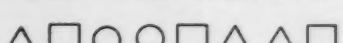
(1) You will use squares, circles, and triangles to make your border.
(2) Draw five squares, four circles, and three triangles in a straight line.
(3) Erase every third figure and replace it with a circle.
(4) Starting with the second figure in your line, erase it and every second figure from then on.
(5) Put a triangle in the first two empty spaces.
(6) Put a square in the next empty space.
(7) Put a circle in the next three empty spaces.
(8) Erase all but the first eight figures.

Which border looks like yours?

(A) 

(B) 

(C) 

(D) 

DO NOT CONTINUE UNTIL TOLD TO DO SO.

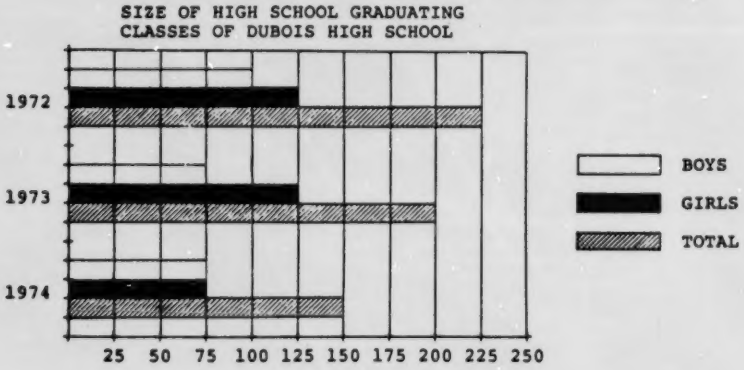
37. Read the following paragraph carefully.

All the students in Leslie's ninth-grade class took a trip to Chicago. A special bus was chartered for the trip. They visited the Aquarium, the Planetarium, and the Lincoln Park Zoo. At lunch time, the thirty-two ninth graders filed into the cafeteria at Marshall Field's. What a lot of hamburgers were consumed!

After reading the paragraph above, which of the following statements could you correctly assume?

(A) Leslie took a trip to Chicago.
(B) The Planetarium was the most enjoyable part of the trip.
(C) The bus driver was nervous about driving thirty-two ninth graders.
(D) They all ate lunch at one o'clock.

38. Use the chart below to answer the following question.



How many girls were in the graduating class of 1973?

(A) 200
(B) 100
(C) 75
(D) 125

47. Look carefully at the application form below.

PLEASE TYPE OR PRINT IN INK
(Pencil is not acceptable)

DEPARTMENT OF STATE
PASSPORT APPLICATION
(Before completing this application, read and detach information for Passport Applicants on pages 3 and 4) (Use supplemental sheets when the space provided is not adequate)

(PASSPORT OFFICE USE ONLY)
R O O DP Endorsement

A TO BE COMPLETED BY ALL APPLICANTS
(First name) (Middle name) (Last name)

1. I, Steeples, Gary Thomas
a citizen of the United States, do hereby apply to the Department of State for a passport.

Please send my passport as quickly as possible.
Gary Steeples

2 3 4 5 MAIL PASSPORT TO:
IN CARE OF (if applicable) Gary T Steeples
STREET 2634 Kenwood
CITY Mapleton STATE Wisconsin ZIP CODE
PHONE NOS. Area Code 319 Home: 684-8570 Business: 684-4720

6. DATE OF BIRTH (Month) 12 (Day) 23 (Year) 43
PLACE OF BIRTH (City, State or Province, Country) Milwaukee, Wisconsin

EVIDENCE

Which line of the application form is completed correctly?

(A) Line 1
(B) Line 4
(C) Line 5
(D) Line 6

48. What mistake did this person make in completing this passport application?

(A) He did not type the information.
(B) He did not give his birthdate correctly.
(C) He did not list his complete phone number.
(D) He wrote in space intended for office use only.

49. Read the following paragraph.

The three-year-old boy had disappeared in the woods. The men searched the woods all night long. If anyone found the child, he was to fire three shots into the air. The boy's mother sat in the cabin waiting for news. Early in the morning, someone fired three shots. The child had been found, asleep under a bush.

Which one of the following phrases shows EFFECT?

(A) the boy had disappeared in the woods
(B) the men searched the woods all night long
(C) if anyone found the child
(D) the boy was three years old

"Proficiency and Review, Test III: Language Proficiency, Form F," Denver Public Schools, Denver, Colorado. Reprinted with permission.

TEST III: LANGUAGE PROFICIENCY

DIRECTIONS:

This test is designed to measure your ability to recognize correctly written English. There are three types of errors in this test: errors in punctuation, capitalization, and grammar. For this test, an "error in punctuation" means that a punctuation mark has been left out *or* incorrectly used. An "error in capitalization" means that a capital letter has been left out *or* incorrectly used. An "error in grammar" includes errors in word usage as well as common grammatical errors.

There are two selections in the test. Each line of the selections is numbered and represents one test item. The words in an item are usually part of a sentence which begins on a previous line or ends on a later one. Study each line. Keeping the whole sentence in mind, decide whether the line is correct or contains one of the errors listed in the key below.

KEY:
- P error in PUNCTUATION
- C error in CAPITALIZATION
- G error in GRAMMAR
- N NO ERROR

SAMPLE ITEMS:

Look at the sample items.

Sample A Mary didn't want no

Sample B ice cream. Her sister did.

In Sample A, "didn't want no " is an error in grammar. Therefore, G is the correct answer. On the back of your answer sheet under the heading "Test III: Language Proficiency," you will find a box labeled "Samples," containing rows A and B. In row A, the circle containing the letter G has been blackened.

Now select your answer for Sample B and mark it on the answer sheet in row B in the box labeled "Samples."

There are no errors in Sample B; therefore, the correct answer is N. On your answer sheet you should have blackened the circle containing the letter N in the row for Sample B.

When you are told to begin work, turn the page and start the language items. The answer to the first item should be marked in row 101 on your answer sheet.

DO NOT TURN THIS PAGE UNTIL TOLD TO DO SO

KEY: P error in PUNCTUATION
C error in CAPITALIZATION
G error in GRAMMAR
N NO ERROR

MONEY HELPS

101 Ted and jim met me after the game,
102 and we went to the drug store for sodas.
103 While we was there, Alice and Sandra
104 came in and set down at our table.
105 Sandra asked, "Can her and me have a ride home?"
106 I said that I didn't mind, although I had very little gas.
107 As Ted paid, he whispered, Can't you help on this?"
108 I gave him my last fifty cents. We walks out.
109 We took a long way home. Sandra wanted to see
110 if the jefferson high school bus was still at
111 school. She wanted to tease her uncle, Jefferson's
112 baseball coach, about losing the game I
113 was worried about gasoline. We parked
114 behind the school bus? The team was
115 leaving the gym. "Hi, uncle ralph," Sandra
116 called. "I'm sorry our team winned so easily." Mr.
117 Smith he came over to the car. "Will you
118 swear to that, he said. The team laughed.
119 "We might have won if our star player had passed
120 his american history," Mr. Smith said.

GO ON TO THE NEXT PAGE

KEY: P error in PUNCTUATION
C error in CAPITALIZATION
G error in GRAMMAR
N NO ERROR

121 The team got on the Bus.
122 Us fellows weren't sorry. The girls
123 were getting to know them Jefferson
124 guys real fast like. We drove the girls
125 home, luckily, I had enough gas.
126 When the car ran out of gas by the roberts
127 Museum. I was alone. I got out
128 and walked home. It wasn't far, but i decided
129 to be less carelesser in the future. I liked
130 riding much better than walking, even a few blocks.

"Writing: Graduation Requirement Competencies, Form A," Parkrose School District, No. 3, Portland, Oregon, 1975. Reprinted with permission.

(6) Jean had a dental appointment on monday morning at ten o'clock. (7) While she was driving to the dentists office, a car ran a traffic light and hit the side of her automobile. (8) Fortunately even though her car was wrecked Jean suffered no injuries. (9) A taxi was called, and she continued to the office for her appointment. (10) As Jean entered the waiting room, the nurse exclaimed, what happened to you?

6. What is incorrect in line (6)?

   a) nothing - the sentence is correct
   b) "monday" should be capitalized
   c) quotation marks are needed for one phrase
   d) ending punctuation is incorrect

7. What change should be made in line (7)?

   a) a comma is needed after "driving"
   b) an apostrophe is needed in one word
   c) a comma is needed after "light"
   d) ending punctuation is incorrect

8. What correction is needed in line (8)?

   a) none - the sentence is correct as written
   b) ending punctuation should be an exclamation point
   c) commas should be inserted after "fortunately" and "wrecked"
   d) quotation marks are needed for one phrase

9. What change should be made in line (9)?

   a) "office" should be capitalized
   b) ending punctuation should be an exclamation point
   c) a comma should be inserted after "continued"
   d) none - the sentence is correct as written

10. What punctuation is missing in line (10)?

   a) none - the sentence is correct as written
   b) an exclamation point is needed after "exclaimed"
   c) the ending punctuation is incorrect
   d) quotation marks are needed for one phrase

CONTINUE ON NEXT PAGE

(16) Next, the family traveled through Nevada and crossed Boulder dam into Arizona. (17) Driving north out of Flagstaff, they approached Grand Canyon National Park from the south side. (18) They agreed that seeing this deep Canyon cut by the Colorado River was one of the highlights of the trip. (19) Then the family took the highway through four corners, a small park where the boundaries of Utah, Colorado, Arizona, and New Mexico meet. (20) Shortly thereafter they entered Mesa Verde a rugged high plateau region cut by several canyons which contain prehistoric Indian dwellings.

16. What error should be corrected in line (16)?

a) "family" should be capitalized
b) insert a comma after "family"
c) "dam" should be capitalized
d) ending punctuation is incorrect

17. What change is required in line (17)?

a) a comma should follow "north"
b) the comma following "Flagstaff" is not needed
c) "south side" should be capitalized
d) none - the sentence is written correctly

18. What correction should be made in line (18)?

a) "Canyon" should not be capitalized
b) a comma should follow "agreed"
c) quotation marks belong before "seeing" and after "trip"
d) none - the sentence is written correctly

19. What correction should be made in line (19)?

a) remove the comma following "corners"
b) "four corners" should be capitalized
c) a comma should follow "park"
d) ending punctuation should be changed

20. What is needed to correct line (20)?

a) an apostrophe is missing in one word
b) insert a comma after "Verde"
c) "prehistoric" should be capitalized
d) ending punctuation should be changed

STOP

"Proficiency and Review, Test II: Spelling Proficiency Form F," Denver Public Schools, Denver, Colorado. Reprinted with permission.

TEST II: SPELLING PROFICIENCY

This test will measure your ability to recognize correctly spelled words.

DIRECTIONS: Each item in this test contains four words and the word "NONE." Each word and the word "NONE" are identified by a letter of the alphabet. If you think a word is misspelled, blacken the circle on your answer sheet containing the letter that identifies that word. If you think all the words are spelled correctly, blacken the circle containing the letter that identifies "NONE." Look at Sample A below.

SAMPLE ITEMS:

Sample A	Sample B
A brain	F enemy
B expense	G flatt
C grammar	H repair
D racing	J salesman
E NONE	K NONE

In Sample A, all the words are spelled correctly. Therefore, the answer is "NONE," identified by the letter E. On the back of your answer sheet under the heading "Test II: Spelling Proficiency," you will find a box labeled "Samples," containing rows A and B. In row A, the circle containing the letter E has been blackened.

Now select your answer for Sample B and mark it on the answer sheet in row B in the box labeled "Samples."

In Sample B, the second word is misspelled. This word is identified by the letter G. On your answer sheet you should have blackened the circle containing the letter G in the row for Sample B.

When you are told to begin work, turn the page and start the spelling items. The answer to the first item should be marked in row 51 on your answer sheet.

DO NOT TURN THIS PAGE UNTIL TOLD TO DO SO

► Do these items the same way you did the Sample Items.

51	A	newspaper	55	A	expect	59	A	jelous
	B	view		B	signal		B	national
	C	ruened		C	choose		C	realize
	D	license		D	democrasy		D	original
	E	NONE		E	NONE		E	NONE
52	F	halvs	56	F	gloryous	60	F	pupil
	G	struggle		G	correct		G	knot
	H	medicine		H	visits		H	discuss
	J	explain		J	residence		J	weight
	K	NONE		K	NONE		K	NONE
53	A	swept	57	A	artist	61	A	provide
	B	manufacture		B	thirteen		B	lissened
	C	afrade		C	whispur		C	benefit
	D	purely		D	bicycle		D	neglect
	E	NONE		E	NONE		E	NONE
54	F	answer	58	F	vision	62	F	ground
	G	honesty		G	giant		G	multiply
	H	relative		H	cease		H	disease
	J	stretch		J	musle		J	fury
	K	NONE		K	NONE		K	NONE

"Democratic Process Minimum Competency Test I," Westside High School, Omaha, Nebraska. Reprinted with permission.

STUDENT NAME _____ ACCEPTED _____

ADVISOR NAME _____ NOT ACCEPTED _____

COUNSELOR NAME _____ INSTRUCTOR SIGNATURE _____

DEMOCRATIC PROCESS MINIMUM COMPETENCY TEST I

Read each of the following statements and decide whether that situation would generally be found in a democratic society.

All the information you need to make your decision is in the statement itself--do not attempt to add information of your own to these statements. We will define any terms you are not sure of during the test. Place an X in the column marked would expect beside those statements which you would expect to find in a democratic society and an X in the column marked would not expect next to those statements you would not expect to find in a democratic society.

Would Expect	Would not Expect		
( )	( )	1.	The President vetoes a bill passed by Congress.
( )	( )	2.	The President abolishes the Supreme Court.
( )	( )	3.	The police break into Jim Jone's house without a search warrant to find out if he has been doing anything illegal.
( )	( )	4.	A woman gets sentenced to jail without a trial.
( )	( )	5.	The government stops the printing of a newspaper because it criticizes the government.
( )	( )	6.	The President appoints the next Governor of Nebraska.
( )	( )	7.	The Supreme Court declares the death penalty unconstitutional.
( )	( )	8.	Joe Door speaks out against governmental policies he disagrees with.
( )	( )	9.	Mrs. Jones is not allowed to vote because of her race.
( )	( )	10.	The President fires a Senator from Nebraska.
( )	( )	11.	The Police refuse to allow an arrested man to phone his lawyer.
( )	( )	12.	A person is arrested for breaking a law that is not written down.
( )	( )	13.	Nebraska requires that all citizens will belong to the same religion.
( )	( )	14.	Joe Smith is taken before the Congress to be put on trial for murder.
( )	( )	15.	Mr. Jones is fined $10,000 for public drunkenness.
( )	( )	16.	Mr. Smith won over half the votes in the race for mayor so he is the next mayor.
( )	( )	17.	Nebraskans elect citizens to represent them in Congress.
( )	( )	18.	The President orders that everyone be in their homes by 10:00 o'clock each night.
( )	( )	19.	People are barred from all city council meetings.
50 ( )	( )	20.	Elections are held regularly.

Would Expect	Would Not Expect		
( )	( )	21.	Only one candidate is allowed on the election ballot.
( )	( )	22.	John Smith is not allowed to run for office because he does not make enough money.
( )	( )	23.	The Date and place for an election are not made public.
( )	( )	24.	Congress declares that a state law need not be obeyed.
( )	( )	25.	The Army is ordered by the President to police the streets of a city when no crisis exists.
( )	( )	26.	Nebraska passes a law making it illegal to drink under age 19 in the state of Iowa.
( )	( )	27.	A city furnishes the people with services such as trash removal, traffic regulation, snow removal, and road repair.
( )	( )	28.	The Omaha City Council prohibits use of studded snow tires on Omaha streets and roads.
( )	( )	29.	The City Council sets aside a section of the city for an industrial site.
( )	( )	30.	The City of Fremont, Nebraska, declares war on Canada.
( )	( )	31.	Mr. Smith chooses not to vote in the Presidential election because he does not feel the candidates meet his requirements for the Presidency.
( )	( )	32.	A local T. V. station attacks the mayor's snow removal program.
( )	( )	33.	People vote secretly.
( )	( )	34.	Mr. Smith passes a legal form around to get signatures in order to change a law.
( )	( )	35.	Minority groups are not allowed into a state university.
( )	( )	36.	People organize to elect a man to represent them.
( )	( )	37.	A difference of opinion on a crucial issue is solved by one person making a decision.
( )	( )	38.	A group of people go to the city council to ask for an investigation of the mayor.
( )	( )	39.	Mrs. Jones is not allowed to run for President because we have never had a woman president.
( )	( )	40.	Mr. Smith refuses to pay his state taxes because he does not agree with the governor and is willing to go to jail for his actions.
( )	( )	41.	Joe refuses to accept the penalty for breaking a law prohibiting the smoking of marijuana.
( )	( )	42.	Ed chooses to go to prison rather than take part in a national war with which he disagrees on moral grounds.
( )	( )	43.	A group of people break into the jail, remove a prisoner, and hang him without a trial.
( )	( )	44.	Joe Smith is elected to go to national convention to help pick the next presidential candidate of his party.
( )	( )	45.	A citizen is upset with a local policemen's speed trap tactics and asks for a public hearing to change this practic

"Art Test," Nebo School District, Spanish Fork, Utah. Reprinted with permission.

DIAGNOSTIC EVALUATION FOR ART SKILLS AND CONCEPTS

Mark on answer sheet only one correct answer. Darken in letter or number.

1. Which of the following does not describe black and white
   a. are directly opposite on a value scale
   b. can be used to change the value or shade of a color
   c. are the greatest difference one can have in value or shade contrast
   d. are one of the chromatic colors

2. Which of the following is not a basic property of color
   a. value
   b. hue
   c. chroma
   d. intensity
   e. texture

3. An example of two complimentary colors are
   a. red and orange
   b. red and purple
   c. red and black
   d. red and green

4. Pure color over-powers grayed colors
   a. True
   b. False

5. Black next to or surrounding a colored area will
   a. make the color appear less bright
   b. make the color appear more bright
   c. will make the color disappear
   d. all of above

6. Light valued colors seem visually heavier than dark valued colors.
   a. true
   b. false

7. After looking at an area of the color red for a period of time, you will see on a white background (the after image)
   a. red
   b. green
   c. black
   d. white
   e. all of above

8. In order to create green paint, one must mix
   a. blue and white
   b. yellow and violet
   c. yellow and blue
   d. blue and red
   e. all of above

9. When you mix two complementary colors together you
   a. make the colors appear brighter
   b. increase its value
   c. lessen its intensity
   d. create a color afterimage

10. The intensity of a color is increased when you add gray or black
    a. true
    b. false

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11. Which color in a painting would visually advance (seem to come forward) the most?
    a. blue
    b. red
    c. green
    d. violet
    e. black

12. In painting a living room to create harmony with some accents, would you
    a. use large areas of bright colors and small areas of neutral colors
    b. use large areas of neutral colors and small areas of bright colors
    c. use all white colors
    d. use all dark colors
    e. all of above

13. Bright colors dominate dark colors
    a. true
    b. false

14. Small amounts of one color can be used to vary the darkness or lightness of another color
    a. true
    b. false

15. If shadows create an illusion of depth, a collage or relief sculpture can be made to appear more three dimensional with
    a. color
    b. mood
    c. point of emphasis
    d. line
    e. light

16. Shadows
    a. do not help us observe what time of day it is
    b. always are in the shape of the object casting them
    c. fall toward the direction of light
    d. may have shapes that are unlike the object casting them

17. Shadows are darkest immediately underneath an object and gradually get lighter as they go away from the object
    a. True
    b. false

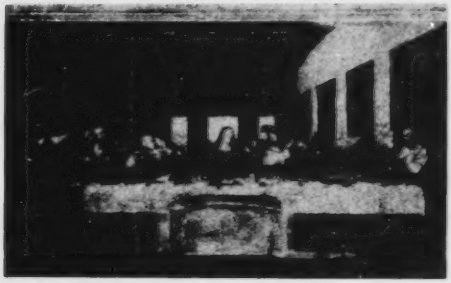
18. Rough texture cause miniature shadows which enables texture to be seen
    a. true
    b. false

19. A shadow is always attached or touches the object casting it
    a. true
    b. false

20. Which of the following does <u>not</u> describe objects as they get farther and farther away
    a. bluer and grayer
    b. smaller
    c. more texture and detail
    d. higher on picture plane or closer to the horizon line

21. One could not distinguish forms and shapes if they had no value contrast with their surroundings
    a. true
    b. false

22. Which statement is not true when only the contour or outline of an object is seen
    a. it appears flat
    b. it looks like a silhouette
    c. it appears smaller



23. In picture #1 Last Supper what type of line perspective was used
    a. three point
    b. two point
    c. one point
    d. atmospheric perspective

24. In picture #1 Last Supper the walls would be considered to the figures
    a. positive space
    b. negative space
    c. open space
    d. no space
    e. all of above

25. #1 picture Last Supper would be considered to be in formal balance
    a. true
    b. false

26. In picture #1 Last Supper what geometric shapes have been used to group the people together
    a. stars
    b. circles
    c. squares
    d. rectangles
    e. triangles

27. The artist who painted picture #1 Last Supper was
    a. Michelangelo
    b. Picasso
    c. De Vinci
    d. Van Gogh

28. In painting #1 Last Supper where is the vanishing point located
    a. center of floor
    b. center of christ
    c. center of ceiling
    d. none of above

"Art Study Sheet," Nebo School District, Spanish Fork, Utah. Reprinted with permission.

STUDENT'S INDIVIDUAL PROGRESS SUMMARY
JUNIOR HIGH SCHOOL

NAME_____ SEX _____ GRADE _____

COURSE ART SCHOOL_____

ENTRY DATE _____ COMPLETION DATE _____

COURSE OBJECTIVES	ACHIEVEMENT DATE	APPROVED BY
REQUIREMENTS:		
1. List ten art related occupations and describe briefly how art relates to each one. Hand in at time of test.	_____	_____
2. Complete one drawing using one or two point perspective. Check library for book on persepective. Hand in at time of test.	_____	_____
3. Create a piece of promotional art work which sells an idea or a product. (poster, advertisement, etc.) Hand in at time of test.	_____	_____
4. Create your own painting. This may be done by using watercolor, colored pencil, oil paint, crayons, etc. Hand in at time of test.	_____	_____
5. Complete all requirements on the color work sheets. Hand in a time of test.	_____	_____
6. Student must pass test with score of 80% or higher. You should be able to pass the test after completing the above assignments and CAREFULLY studying all of the study and work sheets.	_____	_____

TEST SCORE _____

DATE _____

ART STUDY SHEET
JR. HIGH SCHOOL

The principles of art are used by everyone either directly or indirectly. The phrase "I'm not an artist" means little since there are few people who do not spend time wondering about the color and style of their clothing, how they should landscape and furnish their home or determine how to fashion their environment. Art is not a field in and of itself. It relates to many professions and has a definite effect on our emotional and intellectual achievement.

The junior high school student is required to complete the requirements outlined on the individual progress sheet prior to their graduation from junior high school. The requirements are within the range of anyone to achieve and the test can be passed by carefully studying the attached work sheets which encompass all the questions given on the test.

ELEMENTS: THE INGREDIENTS OF ART

LINE: A line is the path of a moving point, that is, a mark made by a tool or instrument as it is drawn across a surface. A line is only the representation of the edge of something. A line does NOT exist in nature.

SHAPE: An area which stands out from the space next to or around it because of a defined boundary or because of a difference of value, color or texture.

COLOR: Color is a response of our vision to wavelengths of light reflected from an object.

SPACE: Space is the measurable distance between established points.

VALUE: The degree of lightness or darkness given to an area by the amount of light reflected from it.

TEXTURE: The actual or illusion of the roughness or smoothness of an object.

PRINCIPLES: ARE THE CORRECT WAY IN WHICH YOU ARRANGE THE ELEMENTS.

UNITY: Ties the elements together into a complete unit.

CONTRAST: The difference between lights and darks.

BALANCE: A condition of rest with both sides being equal.

VARIETY: A difference in shapes and forms.

EMPHASIS: A center of interest; draws attention.

TRANSITION: Change from one place or object to another.

PROPORTION: Relationship of one thing to another.

COLOR WORKSHEET #1...COMPLETE AND HAND IN AT TIME OF TEST.
(Color wheel is on next page)

INSTRUCTIONS: Study the definitions below then color in the color wheel.

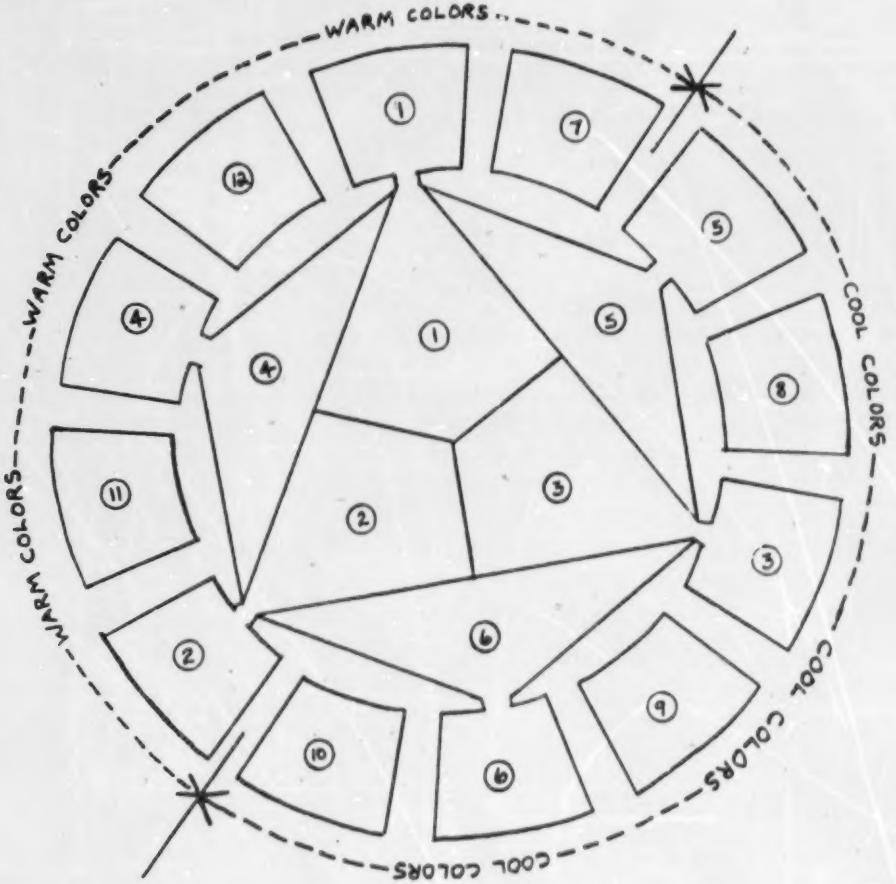
PRIMARY COLORS: (1,2,3 on color wheel) Many colors may be made by mixing other colors together, however, there are 3 colors which CANNOT be made by mixing colors; these are red, yellow and blue. They are called the primary colors. These three primary colors can produce all other colors by mixing them together in different combinations.

SECONDARY COLORS: (4,5,6 on color wheel) Secondary colors are made by mixing any two primary colors together. For example:

PRIMARY & PRIMARY = SECONDARY
RED & BLUE = VIOLET
RED & YELLOW = ORANGE
BLUE & YELLOW = GREEN

INTERMEDIATE COLORS: (7,8,9,10,11,12 on color wheel) The intermediate colors are produced by mixing a primary color with a neighboring secondary color. For example, when you mix red with orange you get the intermediate color red-orange. Other intermediate colors would by yellow-green, blue-violet, etc.

COLOR WORKSHEET #1..COMPLETE AND HAND IN AT TIME OF TEST

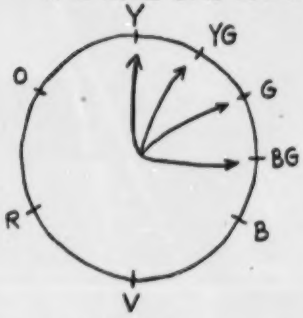


COLOR WORKSHEET #2

TO BE HANDED IN AT TIME OF TEST

COMPLIMENTARY

Any two colors which are directly opposite from each other on the color wheel are called complimentary colors.



ANALAGOUS

A set of analagous colors includes one primary and all other colors up to but NOT including the next primary. They have one color in common, for instance, on the chart above the analagous colors (with arrows) all have yellow in them.

light blue
medium light blue
medium blue
medium dark blue
dark blue

MONOCHROMATIC

Several shades of one color. Shades are made by adding white or black to the color.

WARM AND COOL COLORS: (refer back to color wheel on worksheet #1)

All of the colors we know belong to one of two groups; the WARM colors or the COOL colors. Red, orange, and yellow are usually associated with the sun or fire and are called warm colors because they give the viewer a feeling of warmth. Warm colors are active, vibrant and attention getting. Blue, green and violet are associated with sky and water and are called the cool colors. The cool colors are quiet, calm, peaceful, restful, soothing, etc.

INSTRUCTIONS: Study the charts and definitions above on color schemes. Then in the squares below make up your own design and color it in using the color scheme listed below each square. Hand in at time of test.

MONOCHROMATIC

ANALAGOUS

COMPLIMENTARY

WARM

COOL

"Music Test for Junior High Schools," Nebo School District, Spanish Fork, Utah. Reprinted with permission.

REVISED MINIMUM STANDARD MUSIC TEST FOR NEBO SCHOOL DISTRICT JR. HIGH SCHOOLS

Multiple choice - answers may be used more than once; there is only one correct answer to any one question.

1. Which group of letters is all musical notes?
   a. H,I,J,K,L,M,N
   b. R,S,T,U,V,W,X
   c. C,D,E,F,G,A,B
   d. E,F,G,H,I,J,K
   e. none of these

2 - 11 Match the following symbols with the corresponding name.

2.
3.
4.
5.
6.
7.
8.
9.
10.
11.

a. sharp
b. flat
c. rest
d. note
e. none of these

12 - 15 Which of the following in each group is a professional singer of "Pop" music? (only one correct answer per set)

12. a. Calvin Rampton
    b. John Denver
    c. Aaron Copland
    d. Paul Hindemith
    e. none of these

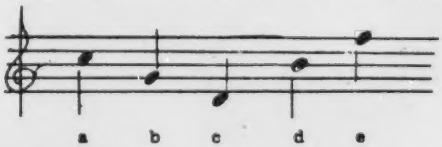
13. a. Frank Sinatra
    b. Wolfgang Mozart
    c. Ludwig Van Beethoven
    d. Alessandro Scarlatti
    e. Modest Moussorgsky

14. a. Olivia Newton-John
    b. George Gershwin
    c. George Friedrich Handel
    d. none of these
    e. all of these

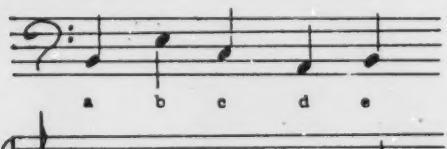
15. a. Irving Berlin
    b. Karen Carpenter
    c. Leonard Bernstein
    d. Samuel Barber
    e. none of these

16 - 18 Which note is the highest in pitch on each staff?

16.



17.



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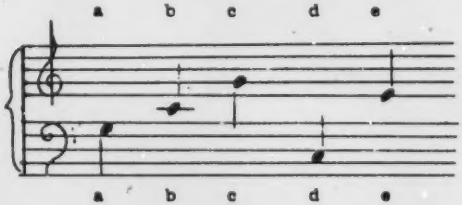


19 - 20 Which note has the longest value in each set?

21 - 34 Match each of the following instruments to its group.
(example 00. trumpet b ; the trumpet is a brass instrument)

Instruments	Groups
21. cymbals	a. strings
22. cello	b. brass
23. clarinet	c. woodwinds
24. trombone	d. percussion
25. bass drum	e. electronic
26. violin	
27. synthesizer	
28. xylophone	
29. acoustic guitar(not electric)	
30. flute	
31. tape recorder	
32. tuba	
33. saxophone	
34. tamborine	

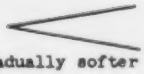
35. Which of the following types of music is sung?
a. opera
b. sonata
c. march
d. overture
e. concerto

36. Which group is the most common vocal classification for a chorus?

a.	b.	c.	d.	e.
I Tenor	trumpet	Soprano	Soprano	Alto
II Tenor	tuba	Bass	Alto	Bass
III Tenor	tamborine		Tenor	Flute
I Soprano	timpani		Bass	

37. The term "A Cappella" means:
a. go faster
b. touring group
c. softer
d. for the church; unaccompanied
e. accompanied by the orchestra

38. Which of the following is a choral group?
a. Madrigal
b. Sonata
c. Ritardando
d. Cresendo
e. none of these

63. What does  tell you to do in music?

a. get gradually softer
b. get gradually louder
c. accent
d. speed up
e. none of the above

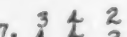
64. What does "rit." tell you to do in music?

a. get gradually faster
b. get gradually slower
c. get gradually louder
d. get gradually softer
e. separate the notes

65 - 69 Match the following staff notations with their names.

65.

66.

67. 

68.

69.

a. repeat signs
b. fermata(hold)
c. bass clef sign
d. treble clef sign
e. time signatures

70 - 74 Match the following words with their definitions.

70.	Accelerando(accel.)	a. The combination of two or more parts simultaniously
71.	Accompaniment	b. Music performed by four instruments or voices
72.	Bar line	c. Gradually faster
73.	Quartet	d. A vertical line used to mark off a measure
74.	Harmony	e. A part which supports the principle melodic line

"Money Management" from *Consumerism: Student Handbook*, Westside High School, Omaha, Nebraska. pages 3-9. Reprinted with permission.

I. MONEY MANAGEMENT

Objectives:

1. Students will be able to plan a budget.
2. Students will be able to correctly write and endorse a check.
3. Students will be able to correctly balance a checkbook.
4. Students will be able to identify advantages and disadvantages of various savings programs.

Budgeting:

A budget is a plan for determining how your money will be spent for things you need, want, and/or how to save your money. The total of your budget cannot be more than the total of the money you have. Example: If your take home pay for one week is $60, then your budget for one week cannot total more than $60.

Steps in Planning a Budget:

1. List your short-term and long-term goals.
2. Figure income (includes salary, gifts, allowance, interest from savings, etc.)

3. Plan according to net pay rather than gross pay.
   (gross pay - the amount before deductions; i.e. social security, taxes, insurance, etc.)
   (net pay - the amount you actually have to spend)
4. List fixed expenses (expenses that are regular and need to be paid every week, month, or year).

Examples: rent, light bill, telephone bill, car payments, insurance, etc.

5. Subtract the total of your fixed expenses from your net pay.
6. Plan remaining income among flexible expenses (expenses that are subject to change).

Examples: gifts, concert tickets, gasoline purchases, new clothing, tickets to sports events, etc.

7. Total of all expenses should NOT exceed net income.
8. Re-evaluate your budget as your needs and income change.

Sample Budget: (Long-term goal: to buy a car)

Gross pay	$200.00	
payroll deductions	40.00	
Net Income		$160.00
Fixed Expenses:		
Payment on stereo	$ 25.00	
Lay-away payment	10.00	
Insurance premium	5.00	
Telephone	10.00	
Savings for car	50.00	
Total fixed Expenses	$100.00	
Flexible Expenses:		
Gas	$ 7.50	
Entertainment	15.00	
Clothes	20.00	
Gifts & contributions	2.50	
Food	10.00	
Miscellaneous	5.00	
Total Flexible Expenses	$ 60.00	
TOTAL ALL EXPENSES		$160.00

65

Writing a Check:

The sample check is from a publication of Southwest Bank of Omaha. The example below is the preferred way to write a check, and will be used for grading the consumer test.

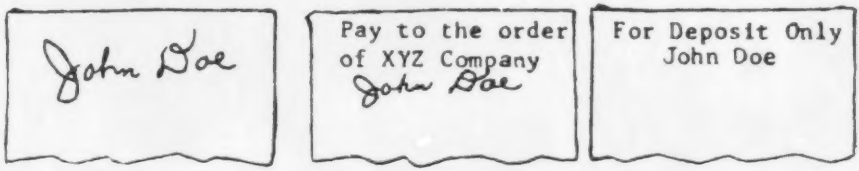
Circled numbers on the sample check below correspond to the numbered items.

1. Date the check.
2. Write or print in ink, or type the name of the person or firm to whom the check is payable.
3. Enter the amount of the check (in figures) opposite the dollar sign.
4. Write the amount of the check (in words) under the "PAY TO THE ORDER OF" line. Start at the left margin.
5. Sign (DO NOT print) your name on the bottom line EXACTLY as it appears on the bank signature card. (The card you sign when you open a checking account)
6. Record what the payment is for on the memo line.

It is possible to stop payment of your check by notifying your bank. A charge will be made for this service. A bank service charge may also be made by banks for handling checking accounts.

Endorsing a Check:

To endorse a check, sign your name on the back. (upper left end)
Your signature of endorsement must be the same as it appears on the front of the check after "Pay to the Order Of". If the endorsement is to be restricted, such as "for deposit only," these words should be written above your name.
Examples of endorsements are as follows:



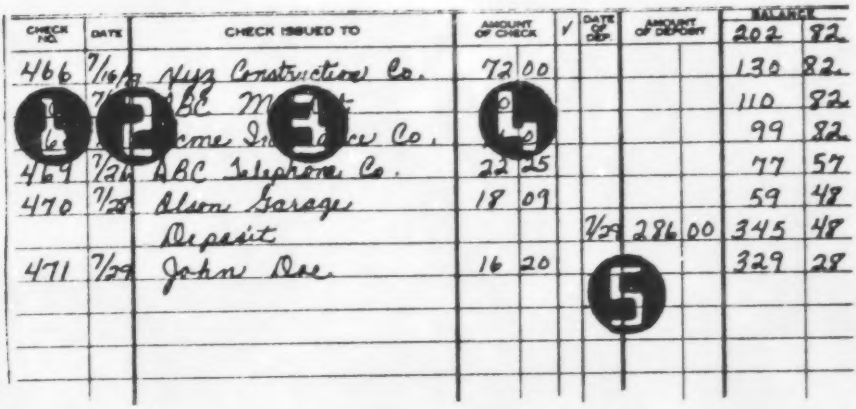
Balancing a Checkbook:

Your checkbook register is that part of your checkbook where you record all the checks you write and deposits you make. When writing checks, record the following:

1. Check number
2. Date of the check
3. The payee (one to whom check is written)
4. The amount of the check
5. Subtract the amount of the check from the previous balance and write in the new balance. Be sure to record the checks in your checkbook register when they are written.

6. Deposits should be recorded in the deposit column and added to the previous balance.

A typical page from a checkbook register is shown below:



CHECK NO.	DATE	CHECK ISSUED TO	AMOUNT OF CHECK	✓	DATE OF DEP.	AMOUNT OF DEPOSIT	BALANCE
466	7/16	Xyz Construction Co.	72 00				202 82
[illegible]	7/	ABC M[illegible]t	[illegible]				130 82
[illegible]	[illegible]	[illegible]me In[illegible]ce Co.	[illegible]				110 82
469	7/24	ABC Telephone Co.	22 25				99 82
470	7/28	Alsons Garage	18 09				77 57
		Deposit			7/29	286 00	59 48
471	7/29	John Doe	16 20				345 48
							329 28

1 2 3 4 5

Reconciliation of a Bank Statement:

When you have a checking account, you usually receive a statement from the bank once each month. The bank statement usually provides a form on the back of the statement to assist you in reconciling.

You should prove the accuracy of this statement with your checkbook in the following way:

1. Look at your bank statement for charges (other than checks) made against your account.
2. Enter and subtract these charges from your checkbook register.
3. Remove your cancelled checks (checks paid by bank and returned to you with bank statement) from your bank statement and sort them numerically.

4. Compare the amounts on your cancelled checks and deposits with the amounts written in your checkbook register. Check off (✓) all cancelled checks and deposits in your checkbook register.
5. Insert the last balance shown on your bank statement.
6. Add deposits not credited to your account.
7. Deduct all checks outstanding (not checked off in your checkbook register and not yet charged to your account).
8. The adjusted balance of your bank statement and the balance in your checkbook register, should be the same.

Banking and Saving:

Banks and savings institutions are "money store$" that deal in money and financial services. A wise consumer will compare the rates of interest, charges, convenience, and serivces available at a variety of banking and savings institutions before selecting one or more of them.

1. commercial bank - checking accounts, passbook savings, time certificates of deposit, loans, purchase of government savings bonds

2. savings and loan - (tends to pay higher interest rates) passbook savings, timed savings accounts, time certificates of deposit, loans for housing businesses

3. U. S. Government Bonds - loans to the government in which the government pays you interest. For example, you buy a $100 bond for $75; when it matures, you receive $100

4. credit union - (offers members fairly good rates for savings and for loans) a group of people of the same employer who join together to form a cooperative association

5. time certificate of deposit - a certificate issued to a person who puts money in a savings institution for a definite length of time, usually 3 months, 6 months, one year or longer. The money is on deposit for the specified length of time at a specific rate of interest. These certificates usually pay a higher rate of interest than other kinds of savings.

6. passbook account - a savings account paying the lowest rate of interest. Deposits and withdrawals can be made at any time.

Your checking and savings accounts are insured up to $40,000 for each account only at banks which are members of F.D.I.C. (Federal Deposit Insurance Corporation) and at Savings and Loan Associations which are members of FSLIC (Federal Savings and Loan Insurance Corporation).

Future Prospects

Some perplexing CBE questions remain to be answered. Their resolution will influence the direction competency-based education and competency testing take over the next five to 10 years.

1. *Can competency testing fulfill the expectations of the public?*

   Is it possible that competency tests will alert schools and motivate students more effectively than standardized achievement tests have done in the past? Many think not. Jeanne Chall[5] asks these questions:

   > Was Peter Doe a functional illiterate after 13 years of schooling because the achievement tests he took in school failed to reveal his reading problem? Or was his problem known but regarded as intractable, given the school's resources and personnel? Or was he possibly not referred for additional testing and treatment? If so, might not the same thing occur after use of the best of the state competency tests?

   Perhaps parents, politicians, and professionals are being somewhat naive to think that a new form of testing, although more diagnostic, will accomplish what older formats failed to do.

2. *Will districts and schools survive the flurry of competency test-related law suits that may well be just around the corner?*

   If a student is denied a diploma without adequate time for remediation, if a weak but sincere student continually fails the competency standards, if the child of a prominent citizen is refused "regular" graduation, if tests are used that lack careful validation or seem to discriminate against minorities, can litigation be far behind? Florida is already the subject of two suits over its state-mandated competency testing. Will other states or districts shy away because the arena is too full of lions?

3. *Will the search for an equitable standard lead to fluctuating criteria—up today and down tomorrow?*

   A very difficult standard will be self-defeating because it will fail too many. A standard that is too easy will be embarrassing because above average students and their parents will not take it seriously. One solution is to sample the competency levels of capable adults in the attendance area, as the Bakersfield, Calif., Kern County School District has done, but will other districts take the time (and money) to do this? Indeed, will adult competency levels in some areas be

5. Chall, Jeanne, "Minimum Competency in Reading: An Informal Survey of the States," *Phi Delta Kappan*, January 1979, p. 352.

too high or too low to be acceptable to school boards or professionals?

4. *Will the current financial crunch in schools (and in society) force districts and schools to focus competency tests solely on basic skills to avoid facing the implications of substantial curricular alternatives that broader programs would demand?*

   Response to this question will cause many CBE efforts to be piecemeal or very limited. As such, they will have direct impact only on the lowest 15 to 25 percent of the student body. The average and superior student will be able to establish competence with little effort, perhaps even at the elementary or junior high school level. If competency testing ultimately affects only the lowest quartile, will it come to be viewed with suspicion as another covert attempt at social stratification?

Chris Pipho of the Education Commission of the States, a regular monitor of both state and local competency trends for almost three years, feels that enthusiasm for mandating minimum competency testing has plateaued. Pipho speculates that the legal issues surrounding competency testing and the push for stronger local control caused legislative interest to peak in 1978. "Mandating at the statewide level," he quips, "may be like swatting flies with a very heavy handle. You may get the fly, but it doesn't do anything for the furniture."[6]

While legislator interest in the CBE movement may have peaked in 1978, its impact probably will carry far into the 1980s and beyond. The various problems discussed earlier in this section probably will result in conservative applications of competency testing and a limited rather than comprehensive approach to competency-based education. Most school districts will opt for the "safe and sane." Most states will sustain or establish statewide proficiency standards in the basic skills but leave the resolution of methodology, instrumentation and assessment questions to local education agencies.

The testing question will not be easily settled. There is much confusion in the minds of the public (and many practitioners) about the relationship between educational quality, school programs, and the measurement of outcomes. Not all students can achieve even a *minimal* competency level unless the criterion is set so low that the achievement becomes meaningless. What can be readily assessed by paper-and-pencil tests may be very different from the application of skills in real life. The most defensible forms of assessment are usually not the most cost effective nor the most efficient in terms of time and

6. Chris Pipho as quoted in *How to Evaluate Education Programs* (newsletter), Capitol Publications, January 1979, p. 7.

personnel. It is certainly easier to measure basic skills by a paper-and-pencil test, whether normative or criterion-referenced, than to simulate actual life conditions and to require students to establish survival proficiency. The public may have a Cadillac in mind when it first views competency-based education, but when it shops the options and compares the costs, it will be quick to settle for a Ford, or perhaps even a moped.

This is not to say that the CBE movement will not leave its mark. Quite to the contrary, competency-based education and testing are classic examples of innovation in our schools. A new program or method when first proposed generates strong support and opposition. If it survives this early stage of implementation, it will gain proponents from a larger group in education, the great and influential majority that ultimately determines the success or failure of any innovation. This is the winnowing stage. The most outlandish as well as the most sophisticated of the alternatives usually wane in popularity at this time, for very different reasons. The outlandish are seen for what they are, fads or fantasies; the highly sophisticated simply require too much work, time, money, and commitment from too many people. What emerges is generally a limited, but acceptable version of the original program.

So it is with competency-based education. CBE grew out of the behavioral objectives, individualized instruction reform movement of the 60s and 70s and was brought into public focus by the SAT test score decline and the back-to-basics push of the middle 1970s. What educational reformers wanted, and still want—a diagnostic/prescriptive approach to education for every child—is very different from where CBE is likely to end. But is it inappropriate to try to strengthen basic skills in those who lack them merely because we will continue to fall short of an individualized educational plan for most American youngsters?

CBE probably is here to stay even if in a limited and less perfect version. But one thing is especially hopeful; if the value of *basic* competencies is established and institutionalized, then the validity of an individualized personalized education for each student cannot long be ignored.

Appendix A
Schools and Districts that Verify Competencies*

Andalusia High School, 701 3rd Street, Andalusia, Ala. 36420
Tests students on locally determined minimum competencies in each course as basis for improving student achievement and curriculum development.

Anchorage Borough School District, Secondary Curriculum Director, Anchorage, Alaska 99503
For the class of 1979, requires basic skills proficiency in English and math.

Craig City School District, Post Office Box 166, Craig, Alaska 99921
Requires exit skills for all students. Entire curriculum utilizes behavioral objectives and verification of skills for graduation.

Phoenix Union High School System, 2526 West Osborn Road, Phoenix, Ariz. 85017
1975: reading proficiency requirement
1977: mathematic proficiency requirement
1981: writing proficiency requirement.

Denver Public Schools, Supervisor of Development and Evaluation, 414 14th Street, Denver, Colo. 80202
Since 1959, the district has had proficiency requirements in language, arithmetic, reading, and spelling.

Kern Union High School District, Bakersfield High School, 1241 G Street, Bakersfield, Calif. 93301
Eleven Kern County high schools have cooperatively developed proficiency tests to reflect the reading, writing, and computational requirements of local entry-level jobs not requiring college training.

Los Angeles Unified School District, 450 North Grand Avenue, Los Angeles, Calif. 90051
Reading proficiency requirement.

Immaculate Conception Academy, 24th and K Street, N.W., Washington, D.C. 20037
Complete competency-based curriculum in social studies.

Duval County School Board, Coordinator, Functional Literacy Program, Administration Building, 1325 San Marco Blvd., Jacksonville, Fla. 32207
Functional literacy requirements.

*Listed alphabetically by state.

Gary City Schools, Superintendent of Schools, Public School System, Gary, Ind. 46402

Administers competency tests in mathematics, reading, writing, and spelling.

Hanover Central Junior-Senior High School, 10120 W. 133rd Avenue, Cedar Lake, Ind. 46303

Requires students to pass locally developed competency tests for graduation in six subject areas: consumer education and social studies, math and science, English and reading.

Phillips Academy, Andover, Mass. 01810

Competency requirement in English.

Detroit Public Schools and Detroit Archdiocesan Schools, 5057 Woodward, Detroit, Mich. 48202

Verification required in reading, writing, mathematics, and problem solving skills in each of the five functional competency areas of the Adult Performance Level (APL) model: 1) occupational knowledge, 2) government and law, 3) health, 4) community resources, and 5) consumer economics.*

Dominican High School, 917 McKinney, Detroit, Mich. 48224

Exit competencies in personal and family management, employment skills, civic and social responsibilities, aesthetic-humanistic appreciation.

Lawton Community Schools, P.O. Box 430, Lawton, Mich. 49065

For promotion, the district requires an 80 percent competency level on performance objectives in all areas of instruction (K-12)—by grade level K-8, and by course 9-12.

St. Paul Open School, 1885 University Avenue, St. Paul, Minn. 55104

Does not use the Carnegie Unit, but requires various experiences and competencies for graduation.

Southeast Free School, 915 Dartmouth Avenue, S.E., Minneapolis, Minn. 55414

Minimum requirements in communication and language, mathematics and science, social perspective and humanities, personal independence and initiative—all verified by competency.

Westside High School, 87th and Pacific, Omaha, Nebr. 68124

Minimum competencies in reading, writing, oral communication, consumerism, the democratic process, and problem solving.

Eldorado High School, 1139 North Linn Lane, Las Vegas, Nev. 89110

Seniors must enroll in a basic math course if they cannot pass a mathematics proficiency test at the end of the 11th grade.

West Milford Township Public Schools, Newfoundland, N.J. 07435

Minimum requirements in math, science, reading, and language arts.

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*See Appendix C for APL Skills and Content Grid with examples of performance tasks in each content-skills area.

Academy of the Holy Names, Upper School, 1075 New Scotland Road, Albany, N.Y. 12208.

Competency-based instruction in all courses. The student must demonstrate competency before continuing sequential material.

Manhassett Junior-Senior High School, Manhasset, N.Y. 11030

Basic competency requirements in math and reading.

White Plains Public Schools, Superintendent of Schools, White Plains, N.Y. 10602

Schools provide remedial instruction in basic skills where need is evidenced by New York State's Basic Competency Tests (in mathematics and reading).

Berea High School, Berea, Ohio 44017

Utilizes the Adult Performance Level Test (see Appendix C) to assess reading and math proficiencies of 10th and 11th graders. Remedial instruction is provided to assist students with skill deficiencies.

Parkrose School District #3, Director, Program Evaluation, 10636 N.E. Prescott Street, Portland, Oreg. 97220

Verification of minimum competencies in reading, writing, speaking, listening, analyzing, and computing. Oregon state graduation requirements mandate an additional seven competency categories for the class of 1981.

Nebo School District, Office of Administration, 50 South Main Street, Spanish Fork, Utah 84660

Requires verification of competencies in career education, music, typing, physical science, mathematics, home economics, English, and art.

Salt Lake City School District, 440 East First Street South, Salt Lake City, Utah, 84111

Competency testing in English and mathematics. Competency-based instruction since 1975-76.

Fairfax County Schools, 10700 Page Avenue, Fairfax, Va. 22030

Class of 1981 to establish proficiency in basic English, math, social studies, and job entry skills as verified by Virginia's newly required minimum competency tests.

Greensville County Schools, Division Superintendent, Emporia, Va. 23847

Minimum standards set for elementary through high school.

Richmond Public Schools, 301 N. Ninth Street, Richmond, Va. 23219

Mandates a literacy requirement for the class of 1978 in advance of Virginia's general competency standards which are applicable in 1981. Initial testing covers "survival skills," giving verbal directions, and writing paragraphs. Failing students are given remedial instruction.

Lincoln High School, 311 Lincoln Street, Wisconsin Rapids, Wis. 54494

Basic skill performance examinations required in English and math (computational and practical applications).

Appendix B

National Association of Secondary School Principals
Summary of Competency Testing in the Fifty States

January, 1979

	AL	AK	AZ	AR	CA	CO	CT	DE	FL	GA	HI	ID	IL
1. State mand. Testing	Y	N	Y	N	Y	N	Y	Y	Y	Y	YE	Y	N
2. Source of Mandate	SB		SB		L		L	SB	L	SB	SB	SB	
3. State Approved Tests	Y		N	N	N	N	Y	Y	Y	Y	Y	Y	
4. Local Tests	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	NA	N	
5. Tied to Graduation	Y		Y	N	Y	N	N	Y N	Y	Y	Y	N	
6. Tied to Promotion	N		Y	N	N	LO	N LO	N LO	Y	N	N	N	
7. Grade Levels Tested	3,6 9, 11		8 12		4-6 7-9 10-11	LO	1-8 NC	11	3,5, 8,11	PK 4,8, 10,11	9 10+	9	
8. Remediation Required	Y		N	N	Y	N	Y	N	Y	Y	N	Y	
9. State Funds/Remediat.	N		N	N	N	N	Y	N	Y	Y	Y	N	
10. Year Implemented	78		76	NA	78		79	78	77	81	78	78	
11. First Grad. Year	81		76		81		NA	81	79	85	83	82	
12. Test Areas													
Reading	✓		✓		✓		✓	✓	✓	✓	✓	✓	
Writing	✓		✓		✓			✓	✓	✓	✓	✓	
Math. Computation	✓		✓		✓		✓		✓	✓	✓	✓	
Spelling								✓	✓			✓	
Listening										✓			
Communication								✓		✓	✓		
Other (See p. 3)						LO	✓			✓	✓		

E = Competency evaluation or certification
L = Legislature
LO = Local option
N = No
NA = Not applicable
NC = Any three non consecutive years 1-8
PK = Pre-kindergarten – Grade 1
SB = State Board
SD = State Department
Y = Yes

	IN	IA	KS	KY	LA	ME	MD	MA	MI	MN	MS	MO
1. State Mand. Testing	Y	N	N	Y	Y	Y	Y	Y	Y	N	N	Y
2. Source of Mandate	SB			L	L	L	L SB	L SB	L SB			SB
3. State Approved Tests	Y	N		Y	Y	Y	Y	Y	Y	N		Y
4. Local Tests	Y	N		N	Y	N	N	Y	Y	Y		N
5. Tied to Graduation	N	N		N	N	N	Y	N	N	N		N
6. Tied to Promotion	LO	N		N	N	N	LO	N	N	N		N
7. Grade Levels Tested	3,6 8,10 (P)	NA		3,5 7,10	4 8 11	8 11	3,7, 9,11	LO T	4 7 10(V)			8+
8. Remediation Required	N	N		Y	N	N	Y	Y	Y	N		N
9. State Funds/Remediat.	N	N		Y	N	N	N	N	Y	N		N
10. Year Implemented	79	NA		78	77	77	77	80	70			79
11. First Grad. Year	NA	NA		80	NA	NA	82	NA	NA			83
12. Test Areas												
Reading	✓			✓	✓	✓	✓	✓	✓			✓
Writing				✓	✓	✓	✓	✓	✓			✓
Math. Computation	✓			✓	✓	✓	✓	✓	✓			✓
Spelling	✓			✓								✓
Listening								✓	✓			✓
Communication	✓								✓			✓
Other	✓			✓			✓	✓	✓			✓

E = Competency evaluation or certification
L = Legislature
LO = Local option
N = No
NA = Not applicable
P = Parallel
SB = State Board
SD = State Department
T = Three levels
V = Voluntary
Y = Yes

	MT	NB	NV	NH	NJ	NM	NY	NC	ND	OH	OK	OR	PA
1. State Mand. Testing	N/V	Y/AR	Y	Y/LO	Y	Y	Y	Y	N	N	N	Y/E	N
2. Source of Mandate		SB SD	L	L	L	SB	SB	L				SB	
3. State Approved Tests	N	N	Y	N	Y	Y	Y	Y		N		M	N
4. Local Tests		Y	N	Y	N	Y	N	N	Y	Y		Y	Y
5. Tied to Graduation	N	N	Y	LO	N	Y	Y	Y	N	LO		Y	N
6. Tied to Promotion	N	N	N	LO	LO	N	N	LO	LO	LO		LO	LO
7. Grade Levels Tested	6 12	5+	3,6, 9,12	4 8 12T	3,6 9, 11	10	8-12	1-3 6,9 11	4 6 8-11	NA		LO	
8. Remediation Required	N	N	Y	N/PO	Y	Y	Y	Y	N	N		N	N
9. State Funds/Remediat.	N	N	N	N	Y	N	N	Y	N	N		N	N
10. Year Implemented		75	77	81	76	78	75	78		U		74	
11. First Grad. Year	NA	NA	82	NA	NA	81	79	79	NA	U		78	
12. Test Areas													
Reading	✓	✓	✓		✓	✓	✓	✓				✓	
Writing		✓	✓		✓	✓	✓					✓	
Math. Computation		✓	✓			✓	✓	✓				✓	
Spelling		✓						✓					
Listening												✓	
Communication	✓											✓	
Other (See p. 3)	✓			✓		✓		✓				✓	

AR = Exists in Accreditation Rule
E = Competency evaluation or certification
L = Legislature
LO = Local option
N = No
NA = Not applicable
PO = Plan *only*
SB = State Board
SD = State Department
T = Three levels
U = Undecided
V = Voluntary
Y = Yes

	RI	SC	SD	TN	TX	UT	VT	VA	WA	WV	WI	WY
1. State Mand. Testing	N	Y	N	Y	N	N/E	N	Y	N	N	N	N
2. Source of Mandate		L		SB		SB	SB	L				
3. State Approved Tests		N	N	Y		N	N	Y		Y	Y	N
4. Local Tests		N	Y	Y		LO	Y	U		Y		
5. Tied to Graduation		N	N	Y		Y	Y	Y		N		
6. Tied to Promotion		N	LO			LO	LO	N				
7. Grade Levels Tested		1,2, 3,6, 8,11	all	4-6 8 11-12		LO	C	9-12		3,6, 9,11		
8. Remediation Required		Y	N			N	Y	Y				
9. State Funds/Remediat.		F	N			N	N	Y				
10. Year Implemented		79		78		80		78				
11. First Grad. Year		NA	NA	82		80	81	81				
12. Test Areas												
Reading		✓		✓		✓	✓	✓				
Writing		G✓				✓	✓	✓				
Math. Computation		✓		✓		✓	✓					
Spelling				✓								
Listening						✓	✓					
Communication												
Other (See page 3)				✓		✓	✓	✓				

C = Continuous
E = Competency evaluation or certification
F = In the future
G = Grades 6, 8, only
L = Legislature

LO = Local option
N = No
NA = Not applicable
SB = State Board
SD = State Department
U = Undecided

Y = Yes

Additional Competency Requirements

Connecticut
- Language arts

Georgia
- Career development
- Logical reasoning
- Composition

Hawaii
- Decision making
- Problem solving
- Independence in learning
- Physical and emotional health
- Career development
- Responsibility to self and others

Indiana
- Government
- Consumer skills
- Science

Kentucky
- Language skills
- Study skills

Maryland
- Survival skills
- Work
- Leisure
- Citizenship

Massachusetts
- Speaking

Michigan
- (Grades 4 & 7 only)
- Science
- Social studies
- Art
- Music
- Health education

Missouri
- Government
- Economics
- Consumer skills

Montana
- Government, history
- Reasoning
- Consumer skills
- Science
- Health, drugs

New Hampshire
- Language arts
- Mathematics
- U.S. and N.H. government and history

New Mexico
- Government, history
- Consumer skills
- Health, drugs
- Problem solving
- Community resources

North Carolina
- Language skills

Oregon
- Analyzing
- (For Class of 1981)
- Use basic scientific and technological processes
- Develop and maintain a healthy mind and body
- Be an informed citizen in the community, state, and nation
- Be an informed citizen in interaction with the environment
- Be an informed citizen on streets and highways
- Be an informed consumer of goods and services
- Function within an occupation or continue education leading to career

Vermont
- Reasoning

Virginia
- Job entry skills

Tennessee
- Grammar

Utah
- Problem solving
- Governmental processes
- Consumer skills

Appendix C
Commercial Publishers of Competency Tests*

The American College Testing Program, P.O. Box 168, Iowa City, Iowa 52240

Publishes the *Adult Performance Level* (APL) Program in two forms, Adult and High School. The APL Program has six measures: a Survey Test (primarily on aid in curriculum and program planning) and five Content Area tests in Community Resources, Occupational Knowledge, Consumer Economics, Health, and Government and Law. The five content tests focus on five basic skills related to adult success: identification of facts and terms, reading, writing, computation and problem solving. (Cf. APL Grid for the resulting content-by-skills matrix). The APL materials are based on the results of a University of Texas (Austin) research project funded by the United States Office of Education. The Texas research team developed a general theory of functional competency, a taxonomy of associated adult performances, and objectives and performance indicators that meet adult success criteria (i.e., income, education and occupational status). A national assessment was conducted.

Beckman-Beal, 3425 L Street, Lincoln, Nebr. 68510

Publishes the *Beckman-Beal Mathematical Competencies Test* measuring 48 skills in areas such as percentage, probability, estimation, computing area, etc.

Cal Press, Inc., 76 Madison Avenue, New York, N.Y. 10016

Publishes a competency-based reading program entitled *Reading for Everyday Adult Living* (REAL). The test measures the ability to read familiar materials such as advertisements, signs, programs, maps, forms, recipes, newspaper-type articles, etc.

California Test Bureau/McGraw Hill, Del Monte Research Park, Monterey, Calif. 93940

Publishes proficiency tests measuring everyday life skills in reading, mathematics, and composition. Instruments for the high school level are:

- *Senior High Assessment of Reading Performance* (SHARP)
- *Test of Performance in Computational Skills* (TOPICS)
- *Test of Everyday Writing Skills* (TEWS)

*This listing is not intended to be exhaustive or an endorsement of the testing instruments themselves.

Those for junior high use are:

- Performance Assessment in Reading (PAIR)
- Assessment of Skills in computation (ASC)
- TEWS Junior High Edition

Educational Testing Service, Rosedale Road, Princeton, N.J. 08540

Publishes the *Basic Skills Assessment* (BSA) that measures proficiencies in reading, writing skills and mathematics. BSA standards of performance are based on a national survey of school districts, recommendations of internal and external advisory boards, the findings of the Right to Read Project, and National Assessment of Educational Progress results. ETS distributes a secure, non-reusable form of the test. A non-secure, off-the-shelf form is available from Addison-Wesley Testing Service, South Street, Reading, Mass. 01867 or 2725 Sand Hill Road, Menlo Park, Calif. 94025.

Houghton Mifflin Company, One Beacon Street, Boston, Mass. 02107 (and five regional offices).

Publishes SCORE, a criterion-referenced measurement service that produces custom-made tests in reading/language arts and mathematics for states, counties, districts, or individual schools. Users order copies of SCORE catalogs containing nearly 1,700 objectives in reading/language arts or math, match the objectives with local needs and designate the ones desired. Houghton Mifflin designs test booklets of as many items per objective as the user specifies, drawing from a bank of 5,200 carefully validated items. The tests may be used for a variety of purposes including minimum competency examinations, exit tests assessing end-of-year proficiencies, accountability measures of basic skills mastery, etc.

Instructional Objectives Exchange, 10884 Santa Monica Boulevard, Los Angeles, Calif. 90025

Publishes the *IOX Basic Skills Tests* in reading, writing, and mathematics. IOX's current focus is applied performance testing growing out of its earlier interest in instructional objectives and item banking. The *Basic Skills Tests* are intended as minimum competency tests for high school graduation requirements.

The Psychological Corporation, 757 Third Avenue, New York, N.Y. 10017

Publishes the *Adkins Life Skills Competency Program*, including evaluation instruments.

APL Skills and Content Grid

CONTENT AREAS ► / SKILLS ▼	COMMUNITY RESOURCES	OCCUPATIONAL KNOWLEDGE	CONSUMER ECONOMICS	HEALTH	GOVERNMENT AND LAW
IDENTIFICATION OF FACTS AND TERMS	Knowing what a time zone is	Knowing what skills are needed for clerical jobs	Knowing what "bait and switch" is	Knowing what the normal human temperature is	Knowing what the Bill of Rights says
READING	Reading a bus schedule	Reading a want ad	Reading a contract	Reading a prescription label	Reading a ballot
WRITING	Writing a letter to make hotel reservations	Filling out a W-4 Form	Filing a consumer complaint	Answering a medical questionnaire	Writing a letter to a legislator
COMPUTATION	Computing a plane fare	Computing overtime earnings	Finding the best buy	Computing a daily dosage	Computing a statute of limitations
PROBLEM SOLVING	Determining where to go for help with a problem	Deciding what to say to a bothersome co-worker	Deciding which of two decisions is better in economic terms	Deciding which meal is best, given a set of preconditions	Determining whether a given situation or action is legal